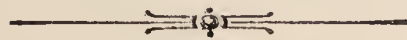


County Borough of Stoke-on-Trent.



ANNUAL REPORT

OF THE


Medical Officer of Health.

1919.

G. PETGRAVE JOHNSON,

M.D., C.M., D.P.H

Stoke-on-Trent :
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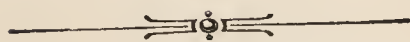
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LAURA GARTON.

County Borough of Stoke-on-Trent.

HEALTH DEPARTMENT.

*To the Mayor, Aldermen and Councillors of the
County Borough of Stoke-on-Trent.*

GENTLEMEN,

I have the honour to present to you the following Report for the year 1919:—

The estimated population at the middle of the year was 249,296. The civil population alone at the same date was estimated at 239,316. The former figure is made use of in calculating the Birth Rate, and the latter for the Death Rate. The population of the Borough as estimated at the middle of 1919 was nearly 15,000 more than that at the Census of 1911.

The Birth Rate was 22.5 as compared with 22.3 for 1918. In 1906 the Rate was 35.2; in 1914, 31.6; in 1915, 26.9; in 1916, 23.9; and in 1917 20.8.

The Birth Rate shewed a very considerable increase during the later months of the year; the Birth Rate for the fourth quarter was 36.8. This increased Rate has been maintained.

The Death Rate was 16.2. The Rate for the 96 large towns was 13.8, or 2.4 lower than that for the County Borough. The Death Rate 16.2, is the lowest yet recorded, with the exception of the year 1912, when it was 15.9.

The Infantile Mortality Rate was 111 per 1,000 births, this Rate being the same as that for 1918, in that year the Rate was the lowest ever recorded to that time. The Rate was very high in the early part of the year, this was due to the large number of deaths from Respiratory Diseases during the Influenza epidemic. The Rate was extremely low towards the end of the year. In the 96 large towns of England and Wales, the Infantile Mortality Rate for 1919 was 93.

Measles and Scarlet Fever were present in epidemic form during the year, as also was Influenza in the early part of the year.

Much earnest consideration has been given to the question of Housing, and the Council is undertaking comprehensive schemes for the provision of new houses, and for dealing with unhealthy areas.

The attention of the Health Committee has been drawn to the shortage of Hospital accommodation in this area, and to the necessity of co-ordinating the work of all the Hospitals in the district. This matter should be dealt with at an early date, so as to secure that future developments shall be well directed.

Adequate pathological facilities are required in the interests of both preventive and curative medicine, and this, as well as the question of the supply of nursing aid to the sick, are further matters which call for action.

The staff of the Health Department has been re-organised, and an effort is being made to overtake some of the arrears consequent on the war.

I am, Gentleman,

Your obedient Servant,

G. PETGRAVE JOHNSON.

Public Health Department,

Stoke-on-Trent,

June, 1920.

POPULATION.

In calculating the population of a district it is usually assumed that the yearly increase has continued to be uniform and at the same rate as in the preceding intercensal period.

The Census of 1911 showed that the population of the County Borough was 234,534, and that the rate of increase of the previous intercensal period had not been maintained.

The populations at the Census periods and the estimated population at the middle of 1919 were as follows:—

CENSUS	1901	1911	Estimated to middle of 1919 (for birth rate)	Estimated to middle of 1919 (civil population only)
BURSLEM ..	38,766	41,566	43,903	42,137
FENTON ...	22,738	25,626	27,506	26,408
HANLEY ...	62,226	66,255	69,824	67,027
LONGTON ...	35,815	37,479	39,272	37,713
STOKE ...	30,458	36,218	39,548	37,965
TUNSTALL ...	24,709	27,390	29,243	28,066
TOTALS ...	214,712	234,534	249,296	239,316

The estimated increase in the civil population in 1919 as compared to 1918 is 30,951.

The figure 239,316 is supplied by the Registrar General; this great increase in the estimate of population for 1919 is due to the fact that by the middle of 1919 a large number of civilians who had left the district to engage in war work and soldiers had returned to the County Borough. The Registrar General states that the estimate is based mainly upon the rationing returns supplied by the Ministry of Food.

As suggested by the Registrar General the figure 249,296 has been used for the calculating of the birth rate.

The population if estimated in the usual way from the ascertained numbers at the Census of 1901 and 1911 would have been 252,296.

The increase of population in 1901 over 1891 was 15 per cent., and in 1911 over 1901, 9 per cent., the average increase throughout the country was about 10 per cent.

The distribution of the population over the whole area at the time of the 1901 Census averaged 18.6 persons per acre, and during the year 1911, 21.0 persons per acre, and in 1919 21.4 persons per acre (civil population).

TABLE 1.
Population Statistics.

Name of Town	Area of Districts.	Built up Area	Per centage of whole area built up	Population 1911 Census	Density of Population Whole Area	Density of Population Built up Area
	ACRES	ACRES	%		PER ACRE	PER ACRE
TUNSTALL...	1,764	184	10	27,390	15.55	148.87
BURSLEM ...	1,862	445	24	41,566	22.32	93.35
HANLEY ...	1,958	730	40	66,255	33.84	90.75
STOKE ...	1,882	417	22	36,218	19.24	86.79
FENTON ...	1,726	226	13	25,626	14.85	113.36
LONGTON ...	1,947	525	27	37,479	19.25	71.35
TOTALS AND AVERAGES }	11,139	2,528	23	234,534	21.06	92.77

INHABITED HOUSES.

At the time of the Census in 1901 there were in the County Borough 41,028 inhabited houses, and at the Census of 1911 there were 46,906 inhabited houses. The proportion of population to houses was, at the Census of 1901, 5.2 persons per house, and in 1911, 5.0 persons per house. There are practically no empty houses in the Borough.

During the year 1919, no new dwelling houses were built in the County Borough. In 1918 the number was 3, in 1917 the number was 3, in 1916 the number was 20, in 1915 the number was 33, in 1914 the number was 90, in 1913 the number was 173, in 1912 the number was 158, in 1911 the number was 190, and in 1910 the number was 322.

RATEABLE VALUE.

The rateable value of the Borough for the purposes of the Poor and Borough Rates in 1919 was—

£844,068.

The assessable value of the General District Rate—

£819,790.

The rateable value of the Borough is diminishing.

The total rates levied in the Borough for all purposes during the year 1919-20 were—

Burslem	...	...	15/3½	in the £
Fenton	...	...	12/9	„
Hanley	...	...	16/3	„
Longton	...	...	15/-	„
Stoke	...	...	14/7½	„
Tunstall	...	...	14/0½	„
Goldenhill	...	...	14/0½	„

TABLE 2.

Areas, Population and Persons per Acre in Existing Wards.

Ward No.	Acreages	Population to middle of 1919 (civil)	No. of persons per acre
1	1,090·93	10,430	9·56
2	249·70	9,662	38·69
3	417·94	7,974	19·08
4	439·66	8,283	18·84
5	433·25	8,075	18·40
6	214·84	9,118	42·44
7	294·94	8,531	28·92
8	480·95	8,130	16·67
9	226·95	11,425	50·39
10	255·75	9,860	38·55
11	500·53	10,422	20·82
12	203·77	8,554	41·97
13	315·91	8,901	28·17
14	266·96	8,536	31·97
15	202·92	9,329	45·97
16	611·60	9,993	16·33
17	280·85	9,293	33·09
18	200·03	10,115	50·54
19	417·58	7,772	18·61
20	565·65	9,089	16·06
21	763·79	8,564	11·21
22	747·92	9,547	12·76
23	738·70	9,066	12·27
24	405·84	10,383	25·58
25	305·80	9,296	30·33
26	506·24	8,968	17·71
	11,139·00	239,316	21·48

Area, Physical Features and General Characteristics of the District.

The County Borough is 11,154 acres in area. It is 9 miles long, and at no part more than $2\frac{1}{4}$ miles wide. About 150 acres are covered with water. The long axis of the district lies north-west and south-east. It is bounded on the north-west by the Urban District of Kidsgrove, on the north-east by the Urban District of Smallthorne, the Rural District of Stoke-upon-Trent, the River Trent and the Rural District of Cheadle; and on the south-east by the Rural District of Stone; on the south-west and from south to north by the Rural District of Stone, the River Trent, the Lyme Brook, the Rural District of Newcastle, the Borough of Newcastle-under-Lyme, the Urban District of Wolstanton, and the Urban District of Kidsgrove.

The highest point of the Borough is to the north of Goldenhill, where it is 700 feet above sea level; the lowest point is at the south end of Stoke below Hanford Bridge, where the Lyme Brook joins the River Trent. The north-east side of the district is on a higher level than the south-west, the level varying from 700 to 600 feet on the north-east, and from 600 to 340 feet on the south-west, there being a gradual fall from the north to the south on both sides.

The district is crossed somewhat south of its centre by the River Trent, and there is a gradual fall along the valley of the Trent from the north-east to the south-west from 400 to 340 feet. The northern portion of the district is drained by the Fowlea and Lyme Brooks, which run along the south-west boundary, receiving on their course smaller streams from the north-east. At the northern limit of Stoke the Fowlea Brook runs across the district to join the River Trent, and the Lyme Brook joins the Trent at the south end of Stoke below Hanford Bridge. The southern portion of the district is drained by the Chitlings Brook and the Longton Brook.

For the most part the district has a south-westerly aspect, only those portions of Hanley and Stoke lying immediately north of the Trent Valley having a south-east aspect.

The Penkhull hill is capped by sandstone—red above and grey underlying it. In all other parts the subsoil consists of red and mottled marls, with some limestone and grey marls and shales with coal and ironstone. The clay ranges from very stiff and damp to loose and gravelly. Along the rivers and streams gravel and sand are found, and water at a depth of a few feet.

The County Borough is divided into 26 Wards.

The population consists chiefly of the working classes. The nature of the accommodation and rentals of the houses is generally as set out below:—

(a) Houses with living room, scullery, and two bedrooms	... ..	Weekly Rent.
	... ..	3/- to 3/6 net.
(b) Parlour, living room, scullery, and two bedrooms	... ..	3/10 to 4/2 net.

- (c) Parlour, living room, scullery, and three bedrooms ... 4/4 to 4/10 net.
 (d) Parlour, sitting room, kitchen, scullery, and three bedrooms ... 5/3 to 6/- net.

N.B.—Net means rent exclusive of rates.

At the Census of 1911, the number of domestic servants per 1000 population was 15, as compared with 22.2 in Nottingham, 19.2 in Leicester, 16.6 in Salford, 31.4 in Portsmouth, 16.1 in Bradford, and 27.0 in Newcastle-on-Tyne.

The number of four-roomed houses per 100 dwelling houses was 62.1 in Stoke-on-Trent, 38.1 in Nottingham, 17.5 in Leicester, 58.0 in Salford, 34.2 in Portsmouth, 64.5 in Bradford, and 79.2 in Newcastle-on-Tyne.

There are only a few small better-class residential houses in Stoke-on-Trent. At the present time there is a large amount of overcrowding of working-class houses.

Principal Industries of the District.

The principal industries are china and earthenware manufacture, coal mining, iron works, brick and tile making, and railway works.

Principal Occupations of the Population at the Census of 1911.

Pottery Workers	...	...	...	47,921
Miners	...	...	...	14,088
Engineers and Iron Workers	...	...	...	4,958
Builders and Workers of Construction				5,114
Domestic Servants	...	...	...	3,609
Laundry and Charwomen	...	...	...	754
Milliners, Dressmakers, &c.	...	...	...	2,453
Carriers, &c.	...	...	...	2,241

In connection with the manufacture of pottery the workers in certain sections are exposed to the effects of lead, and in years gone by used to suffer considerably from lead poisoning, but the number of cases has largely diminished in recent years though there is a decided increase in the number reported in 1919. This matter is referred to in detail later.

In other departments the workers are also exposed to the effects of dust and suffer from Bronchitis and Potters' Phthisis and possibly also Tuberculosis. These effects, however, have been very much lessened in recent years through more efficient ventilation and the exercise of greater care in cleansing the workrooms.

The process of manufacture of China and Earthenware also gives rise to the emission of a large amount of black smoke, and though methods are being introduced which, it is to be hoped, will ultimately reduce this nuisance, it must be many years before marked results are noticed.

BIRTHS.

There were 5,635 births registered in the County Borough of Stoke-on-Trent in 1919, giving a birth rate of 22.5 per 1,000. This rate is calculated in accordance with the suggestions laid down by the Registrar General.

The rate for the 96 great towns of England and Wales was 19.0 per 1,000, and for England and Wales 18.5.

The rate is 0.2 higher than in 1918. The birth rate in the County Borough, in 1906 was 35.2, 1907—33.5, 1908—34.5, 1909—33.1, 1910—33.5, 1911—31.3, 1912—31.2, 1913—31.9, 1914—31.6, 1915—26.9, 1916—23.9, 1917—20.8, 1918—22.3 and 1919—22.5.

In 1876 the birth rate in this country attained the highest point on record, viz.:—36.3 per 1,000 living. Since that date the rate has, with few exceptions, fallen year by year.

The ratio of births of males to births of females during the year was 1.071 to 1,000. For the year 1918 the ratio was 1.019 males to 1,000 females, 1917, 1.034 to 1,000, 1916, 1.055 to 1,000, 1915, 1.007 to 1,000, 1914, 1.018 to 1,000, 1913, 1.018 to 1,000 and for the year 1912, 1.067 to 1,000, 1911 it was 1.003 to 1,000. In the years 1865—1917 the ratio in England and Wales has varied from 1.032 per 1,000 to 1.054 per 1,000.

Of the 5,635 children born, 2,915 were males, and 2,720 were females. The number of births and birth rates for the various areas are as follows:—

Burslem	...	1,046	birth rate	23.8	per 1,000.
Fenton	...	628	„	22.8	„
Hanley	...	1,591	„	22.8	„
Longton	...	892	„	22.7	„
Stoke	...	741	„	18.9	„
Tunstall	...	737	„	25.2	„

The birth rate was highest in Tunstall and lowest in Stoke.

The natural increase of population, that is, excess of births over deaths, was 1,756. The previous year it was 992, a difference of 764 lives. This is accounted for by the fact that the number of births registered was 416 more than in 1918, while the number of deaths was 348 less.

ILLEGITIMATE BIRTHS.

Of the total births 322 or 5.7 per cent. were illegitimate. The rate for 1918 was 6.6. The percentage of illegitimate births in England and Wales is 6.26 for the year 1918. The Illegitimate Birth Rate per 1,000 of population was 1.29 in Stoke-on-Trent as compared with 1.11 in England and Wales for the year 1918.

STILL BIRTHS.

The Superintendents of the Cemeteries report that the number of bodies of still-born children buried during the year was:—

Burslem	...	...	...	...	73
Fenton	...	...	...	...	30
Hanley	...	...	...	...	78
Longton	...	...	...	...	40
Stoke	...	...	...	...	41
Tunstall	...	...	...	...	34
Stoke Workhouse	...	...	...	...	5
					<hr/>
					301

Under the Notification of Births Act, which was brought into force in the County Borough under the Federation Act, all still births must be notified to the Medical Officer of Health. 276 were notified during the year under the Act, and of these 181 were attended by midwives, and 95 by medical men.

Lists of the still births buried at the Cemeteries are now obtained monthly from the Registrars at the Cemeteries for comparison with the notifications under the Notification of Births Act.

Taking the number of still births that occurred in 1919 as 301, it is equal to 5.3 per cent of the total births. In 1918 there were 247 still births, equal to 4.7 per cent.

TABLE 3.
Vital Statistics of Whole District during 1919 and previous years.

Year	Population to estimated to middle of each year	BIRTHS			Total Deaths registered in the district		Transferable Deaths		Nett Deaths belonging to the district			
		Un-corrected Number	Nett		Number	Rate	of Non-residents registered in the District	of Residents not registered in the District	Under 1 year of age		At all ages	
			Number	Rate					Number	Rate per 1,000 Nett Births		
1911	235,069	7,374	7,367	31·3	4,637	19·7	112	161	1,495	203	4,686	19·6
1912	237,159	7,403	7,399	31·2	3,747	15·7	135	170	947	128	3,782	15·9
1913	239,284	7,655	7,643	31·9	4,531	18·5	160	190	1,295	169	4,561	18·7
1914	241,430	7,647	7,640	31·6	4,213	17·4	162	189	1,101	144	4,240	17·5
1915	225,405	6,506	6,494	26·9	4,081	18·1	151	224	955	147	4,154	18·4
1916	219,755	5,731	5,728	23·9	3,620	16·4	170	242	725	126	3,692	16·8
1917	215,116	4,992	4,991	20·8	3,473	16·1	149	231	579	116	3,555	16·5
1918	208,365	5,222	5,219	22·3	4,175	20·0	207	259	582	111	4,227	20·3
1919	239,316	5,638	5,635	22·5	3,897	16·2	192	174	628	111	3,879	16·2

Area of District in acres (land and inland water)	11,154	Total population at all ages—234,534	} At Census 1911 (of Census Vol. V.)
		Number of inhabited houses—46,906	
		Average number of persons per house—5·0	

TABLE 4.

Showing the number of Births, Birth Rate, number of Deaths, Death Rate, and Infantile Mortality Rate in each of the 26 Wards.

WARD	No. of Births notified	Birth Rate	No. of Deaths registered	Death Rate	Infantile Mortality Rate
1 ...	289	26·6	148	14·2	97
2 ...	305	30·2	163	16·8	108
3 ...	186	22·3	126	15·8	118
4 ...	215	24·8	120	14·4	107
5 ...	168	19·9	113	14·0	89
6 ...	265	27·9	173	18·9	177
7 ...	253	28·7	158	18·5	99
8 ...	209	27·9	150	18·4	124
9 ...	314	26·3	201	17·5	114
10 ...	260	25·5	148	15·0	92
11 ...	276	25·4	225	21·6	72
12 ...	237	26·6	144	16·8	130
13 ...	208	22·4	164	18·4	110
14 ...	171	19·2	134	15·7	105
15 ...	188	19·3	144	15·4	85
16 ...	194	18·6	114	11·4	46
17 ...	178	18·3	130	13·9	78
18 ...	210	19·9	158	15·6	76
19 ...	198	24·4	134	17·2	147
20 ...	211	22·2	141	15·5	118
21 ...	220	24·7	119	13·9	71
22 ...	206	20·7	135	14·1	78
23 ..	270	28·5	169	18·6	115
24 ...	284	26·3	186	17·9	173
25 ...	189	19·5	147	15·8	90
26 ...	179	19·1	135	15·0	101
Whole Boro.	5,883	22·5	3,879	16·2	111

TABLE 5.

Showing the Birth Rate, Death Rate, and Infantile Mortality Rate for the past twenty years.

	Birth Rate	Death Rate	Infantile Mortality Rate
1900	39·1	25·3	207
1901	35·1	20·9	208
1902	36·6	19·6	173
1903	34·6	18·2	179
1904	35·9	19·8	195
1905	33·6	19·8	191
1906	33·9	18·4	175
1907	33·5	19·0	162
1908	34·5	18·5	171
1909	33·1	19·4	163
1910	32·5	17·1	149
1911	31·3	19·6	203
1912	31·2	15·9	128
1913	31·9	18·7	169
1914	31·6	17·4	144
1915	26·9	18·4	147
1916	23·9	16·8	126
1917	20·8	16·5	116
1918	22·3	20·3	111
1919	22·5	16·2	111

DEATHS.

The number of deaths registered in the County Borough during the year 1919 was 3,897. This gives a death rate of 16.3 per 1,000 of the population. Of the total deaths 704 occurred in public institutions in the district. If the deaths of non-residents which occurred in the district be excluded, also the deaths of all soldiers, and the deaths of residents which occurred beyond the district be included, the nett deaths belonging to the district is 3,879 (1,969 males and 1,910 females), and the death rate 16.2 per 1,000.

The death rate for the 96 great towns of England and Wales was 13.8 per 1,000, and for the whole of England and Wales 13.8.

The death rate of 16.2 per 1,000 for 1919 was 4.1 per 1,000 lower than that of 1918.

If the death rate in Stoke-on-Trent had been no higher than the rate for the 96 great towns of England and Wales it would have meant 675 fewer deaths in the Borough.

The death rate for the 96 great towns of England and Wales was 4.4 lower in 1919 than 1918.

The birth rate is lowest in the Stoke-upon-Trent District and highest in the Tunstall District, while the death rate is lowest in Stoke-upon-Trent, and highest in Longton.

The number of deaths, and the death rates, in each of the six districts of the County Borough were as follows:—

	No. of Deaths.		Death Rate.	
Burslem	...	714	...	16.9
Fenton	...	410	...	15.5
Hanley	...	1,160	...	17.3
Longton	...	637	...	17.4
Stoke	...	521	...	13.7
Tunstall	...	437	...	15.5

PRINCIPAL CAUSES OF DEATH.

	1919	1918
Phthisis and other Tubercular Diseases	361	433
Congenital Debility and Malformation, including Premature Birth	272	222
Bronchitis	563	425
Pneumonia	354	488
Organic Heart Disease	259	239
Cancer	200	193
Violence	113	105
Diarrhœa and Enteritis	69	61
Nephritis and Bright's Disease	75	83
Influenza	447	778

DEATHS FROM PRINCIPAL ZYMOTIC DISEASES.

	1919	1918
Small-pox	—	—
Enteric Fever	3	5
Diphtheria	29	60
Scarlet Fever	31	8
Whooping Cough	105	36
Measles	20	150
Diarrhœa and Enteritis	69	61

The death rate from the seven principal Zymotic Diseases was 1.07 per 1,000 of the population, compared to 1.53 per 1,000 for the County Borough in 1918. The Diarrhœa death rate accounted for 0.28 per 1,000 compared to 0.30 in 1918.

Of the 3,879 deaths in the County Borough, 38 or 0.97 per cent. were not certified either by a registered medical practitioner or by a coroner. In the 96 large towns the percentage of uncertified deaths was 0.8.

The following table shows the death rate from the principal Zymotic Diseases compared with the death rate of the 96 great towns:—

				Stoke-on-Trent	98 Large Towns
				1919	1919
Diarrhœa (under 2 years) per					
1000 births	...			6.92	12.24
Measles	...	...	..	0.08	0.13
Diphtheria	...	...	..	0.12	0.14
Scarlet Fever	...	...	..	0.13	0.04
Whooping Cough	...	...	...	0.43	0.07
Enteric Fever	...	...	...	0.01	0.01

POOR LAW RELIEF.

In the County Borough of Stoke-on-Trent are included portions of two Poor Law areas.

The following return with reference to Poor Law Relief is supplied by Mr. T. Wood, Clerk to the Stoke-upon-Trent Union. In the Stoke-upon-Trent Union is included the Rural District of Stoke-upon-Trent in addition to the Hanley, Stoke, Fenton, and Longton areas of the County Borough of Stoke-on-Trent:—

OUT-DOOR RELIEF :—

For year ending 31st March, 1914	...	£10,768
„ „ „ 1919	...	£10,893
„ „ „ 1920	...	£14,812

Number of persons in receipt of Out-door relief on—

31st March, 1914	...	2,064
31st March, 1919	...	1,294
31st March, 1920	...	1,194

IN-DOOR RELIEF :—

For year ending 31st March, 1914	...	£12,213
„ „ „ 1919	...	£21,808
„ „ „ 1920	...	£26,692

Number of persons relieved in the Institution on—

31st March, 1914	...	1,007
31st March, 1919	...	733
31st March, 1920	...	606

The following return with reference to Poor Law Relief is supplied by Mr. J. E. Lowndes, Clerk to the Wolstanton and Burslem Union. The return relates to the three Parishes of Burslem, Tunstall, and Goldenhill, which are included in the area of the County Borough of Stoke-on-Trent:—

TOTAL COST OF OUT-DOOR RELIEF :—

	£	s.	d.
1914	4161	5	9
1918	5156	18	4
1919	5950	2	11

NUMBER OF CASES AND PERSONS RELIEVED :—

	Cases.	Persons
1914	815	1916
1918	559	1212
1919	579	1215

NUMBER WHO HAVE RECEIVED OUT-DOOR MEDICAL RELIEF :—

1914	474
1918	289
1919	203

TOTAL NUMBER CHARGEABLE IN INSTITUTION, AND COST OF IN-DOOR RELIEF :—

			Number.			Cost.		
						£	s.	d.
1914	...	...	1114			3548	18	3
1918	...	...	436			4739	0	4
1919	...	...	487			5381	0	10

GRATUITOUS MEDICAL RELIEF.

NORTH STAFFS. INFIRMARY.

Number of Civilian In-Patients treated annually from November 1st, 1909, to October 31st, 1919:—

1909-10	...	...	2,193
1910-11	...	...	2,262
1911-12	...	...	2,370
1912-13	...	...	2,322
1913-14	...	...	2,549
1914-15	...	...	2,852
1915-16	...	...	2,632
1916-17	...	...	2,803
1917-18	...	...	2,947
1918-19	...	...	3,056

The number of Out-Patients for the year ending October 31st, 1919, was 21,881, as compared with 20,456 for the year ending October 31st, 1918.

In addition to the North Staffs. Infirmary there are two other Voluntary General Hospitals in the area, viz.: Haywood Hospital, Burslem, and The Longton Cottage Hospital. The Haywood Hospital has 35 beds for In-Patients, and an Out-Patient Department. The Longton Cottage Hospital has 42 beds for In-Patients, and an Out-Patient Department.

There is also a Special Institution in connection with the North Staffordshire Cripples' Aid Society for dealing with Orthopaedic cases, including surgical cases of Tuberculosis.

WATER SUPPLY.

The district is supplied by the Staffordshire Potteries Water Works Company. Pumping stations are provided for the whole area at Wall Grange, the Meir, and at Hatton. The supply is from deep wells sunk in the red sandstone. The quality of the water is good and the supply constant.

There are now only six wells in the County Borough, supplying the following houses:—Park Farm, Goldenhill; The Kennels, Cobridge; 21, 23, 25, 27, 29, 31, Meir Road, Longton; Cottage, Bog Lane, Longton; Windy Arbour Farm, Longton; Holly Bush Farm, Blurton Road, Fenton.

SEWAGE DISPOSAL.

(By the courtesy of Mr. W. H. Makepeace, Borough Sewage Engineer).

The River and Streams passing through the County Borough of Stoke-on-Trent receive at various points, Trade Wastes from Gas Works and Ammonia Recovery Plants at the Works of Coal and Iron Companies.

There is also a considerable amount of waste liquor being discharged from Chemical Works, into the Fowlea Brook.

There is also a quantity of "Slip" Water from Factories which discolours the Streams, but really does not rob the Streams of oxygen.

The most serious pollution takes place in the Fowlea Brook, and prior to the War negotiations were set up with the responsible Company about it. During the War nothing was done, and since November, 1918, negotiations have restarted, and in the near future it is hoped that some good will arise from them.

Longton has partly Bacterial and Farm Scheme. Stoke has Tank Treatment, followed by intermittent downward Filtration and Broad Irrigation; and at Tunstall a Chemical Precipitation with Bacteria and Polarite Beds is the system adopted, but in addition to this, some very important and very successful experiments have been conducted with the Activated Sludge method of Sewage Disposal.

The Ministry of Health have been much interested in these experiments, and have been supplied, through their Chemical Inspector, with full detailed information of them.

These experiments have been conducted with a view to keeping up-to-date with the methods of Sewage Disposal, and more particularly for the urgent needs of the Stoke district.

The Sewage Plants during the War suffered, like other Departments, through inefficient staff, and they still bear signs of it.

Generally, the works are large enough with the exception of Stoke, which requires a new installation.

The dry weather flow to each of the works is approximately as follows:—

Burslem	...	..	1,000,000	gallons per day
Fenton	...	..	500,000	" "
Hanley	...	...	2,000,000	" "
Longton	...	..	1,100,000	" "
Stoke	...	...	1,100,000	" "
Tunstall	...	..	500,000	" "
Total			...	6,200,000

With the exception of Stoke, the whole of the works were designed to deal with six times the dry weather flow, and the average amount of sewage and storm water dealt with per day, throughout the year, was 12,860,000 gallons.

Tank Treatment.

The Sewage in this district lends itself to successful Tank Treatment owing to the presence of trade waste from the potteries, which assists in the precipitation of the organic solids without the aid of chemicals, and, generally speaking, an effluent containing not more than ten parts per 100,000 of suspended matter can be obtained after being held up for a period of about twelve hours. The use of chemicals at Tunstall will be dispensed with for a greater portion of the year, and used only for assisting in deodorising the sewage during the summer months.

Sludge Disposal.

Various systems are in use for dealing with this difficult matter. At three of the works (Hanley, Burslem and Tunstall) it is pressed by hydraulic presses and carted on to a tip. There is, however, some small sale for it. At Fenton and Longton the sludge is disposed of on specially prepared Sludge Beds, from which the solids are extracted, and the Supernatant Water pumped back for further treatment through the tanks, or into special filters.

At Stoke it is discharged into lagoons, or trenched in the soil.

The most successful method is, undoubtedly, by pressing, although it is more costly than the method of drying sludge on specially prepared beds.

Bacteria Beds.

The area of the bacteria beds at the various works is as follows:

Burslem	...	...	...	3½ acres
Fenton	...	...	...	2 „
Hanley	...	...	...	9 „
Longton	...	...	...	1½ „
Tunstall	...	...	...	1 „
				—
Total	...	...	...	17 acres

They are all constructed as Percolating Beds, with the exception of half an acre at Fenton, which is used on the "contact" principle. The material used as a filtering medium is saggars, a local waste, from the pot works. The filters are about five feet in depth, and are of medium size.

Automatic power-driven distributors, of modern type, are used for distributing the sewage over the beds, and are driven by electric motors, Internal Combustion Engines, and hydraulic power.

Irrigation.

The area of land available for irrigation at the Longton Farm is 210 acres, 37 of which are set aside for the treatment of storm water. The subsoil is heavy clay, which render it difficult to procure a good effluent.

Sixty acres at Stoke are available for sewage treatment, and the subsoil is sandy loam.

Effluents.

The quality of the effluents obtained from the Burslem, Hanley, Fenton, Longton and Tunstall bacteria beds is of a high quality, practically free from suspended matter, is well oxydised, and the nitric nitrogen figure is rarely below 3 parts per 100,000. The opacity of the effluent is remarkably good, the test often showing print through a column 24 inches deep.

The effluent from the land at Longton and Stoke will not bear favourable comparison with the effluent from the bacteria beds, the nitric nitrogen figure being very low, and at times putrefraction sets in during the usual period of incubation.

The cost of maintenance was £31,000 per annum during the past 12 months, and the whole of the works are under the control of the Borough Sewage Engineer.

Practically the whole of the area is sewered. There are 214 houses not connected with sewers, but these are mainly situated in outlying districts.

CLOSET ACCOMMODATION.

There are in the Borough 43,186 water closets, but of these there are approximately 14,000 which have no flushing system attached. There are 907 pail closets and about 3,600 cesspit closets or privies.

The number of privies and pail closets converted into water closets during the years 1911 to 1919 is as follows:—

Year					Number
1911	...	...	...	...	366
1912	...	...	...	...	338
1913	...	...	...	...	658
1914	...	...	...	...	1150
1915	...	...	...	...	498
1916	...	...	...	...	38
1917	...	...	...	...	35
1918	...	...	...	...	45
1919	...	...	...	...	68

SCAVENGING.

The following table gives the sanitary accommodation of the houses in the Borough in certain years.

	1911	1914	1918	1919
Number of houses (including new houses erected and deducting demolitions)	49,071	49,213	47,147	49,147
Number of water closets...	18,601	21,105	22,283	22,363
Number of privies ...	6,428	4,287	3,653	3,585
Number of pail closets ...	1,285	1,009	915	915
Number of hand-flushed closets ...	13,934	13,795	13,859 (118 temporary)	13,859 (118 temp.)
Number of slop water closets ...	7,142	7,091	7,044	7,037
Number of ashpits ...	24,825	21,059	20,072	19,928
Number of ashbins ...	24,670	28,702	30,076	30,626

Ashbins, are, as a rule, emptied once weekly, but those used in connection with shops situated in the centres of the towns, being upwards of 1,000, are emptied daily.

The following table shews the number of times ashpits and cesspit closets have been emptied during the years 1915 to 1919:—

ASHPITS.

	Tunstall	Burslem	Hanley	Stoke	Fenton	Longton
1915 ...	7	6	7	7	9	6
1916 ...	11	7½	7	7	9	6½
1917 ...	12	7	6½	9½	9	6
1918 ...	11	8	7	9	7	5
1919 ...	7	6	6	7	8	6

CESSPIT CLOSETS.

	Tunstall	Burslem	Hanley	Stoke	Fenton	Longton
1915 ...	12	5	11	9	9	11
1916 ...	12	7	12	7	10	11
1917 ...	12	8	12	9	11	11
1918 ...	12	7	12	9	11	12
1919 ...	12	8	12	10	12	12

Rochdale pails are emptied regularly once weekly.

The work of removal of ashpit refuse in the early months of the year, as in previous years, fell into arrear, and it will be necessary in future to provide more teams for this work. At present the teams are sufficient to deal with the removal of ashes during the spring, summer and autumn, but not in winter. The average number of teams employed by the Corporation during the year 1919 was 56. Of these 28 were hired, and 28 owned by the Corporation. The number of teams owned by the Corporation is gradually being increased.

In the emptying of ashpits in many instances the ashes have to be tipped on the surface of the roads before removal by the carts. This matter is receiving the attention of the Health Committee.

The conversion of open defective ashpits into ashbins and the replacement of dilapidated ashbins has proved difficult on account of the shortage of supply of ashbins. The Corporation has had to themselves order in large quantities in order to facilitate the work.

The work of conversion of cesspit closets into water closets was suspended during the war. This is again being pressed forward under the scheme of the Corporation in accordance with section 39 of the Public Health Acts Amendment Act, 1907.

The following table shews the amount of refuse removed during the past three years:—

	1917	1918	1919
Loads destroyed	35,590	32,823	38,253
Loads tipped	7,540	7,714	10,600
Total loads of refuse removed ...	43,130	40,537	48,853
Weight destroyed (tons)...	45,927	36,935	54,000
Tubs of Nightsoil removed ...	8,913	8,988	9,043

No Nightsoil is now tipped on land. It is all dealt with at the various sewage works.

There are four Destructors in the area, one each at Burslem, Hanley, Stoke and Longton, and capable of dealing with 206 tons of refuse per day of three shifts.

The following is a record of the work done at each of the Destructors:—

HANLEY DESTRUCTOR WORKS.

The weight of refuse destroyed during the year 1919 was 12,769 tons.

The weight of mortar made and sold was 711 tons.

Concrete Slabs manufactured, 550 square yards.

Concrete Slabs sold, 684 square yards.

Scrap tin sold, 3 tons 10 cwts.

Crushed Clinker sold, 25 tons.

LONGTON DESTRUCTOR WORKS.

Refuse destroyed, 11,441 tons.

Mortar made and sold, 2,038 tons.

Scrap iron and tin sold, 30 tons 18 cwts.

BURSLEM REFUSE DESTRUCTOR WORKS.

During the year 7,461 tons of refuse were destroyed.

Light scrap iron and tin sold, nil.

STOKE REFUSE DESTRUCTOR WORKS.

Weight of refuse destroyed during the year, 11,059 tons.

Weight of mortar made and sold, 1,838 tons 16 cwts.

Scrap iron and tin sold, 12 lbs. (wrought scrap).

In addition to the Destructors, ashes were tipped during the year at:—The Cottage Tip, Tunstall; Ferneyhough's Farm, Goldenhill; Little Chell Farm; Fenton Park.

It was the intention of the Council to erect a Destructor at the other end of the district, but the Ministry of Health has refused to sanction this. The Tip at that end of the District is a very large one, and at an early date the Health Committee will have to consider, in conjunction with the Ministry of Health, the best method of dealing with this refuse.

The total cost of the removal and disposal of nightsoil and ashes during the year ending 31st March, 1919, was £30,478.

Salvage.

In June, the salvage of rags, bones and bottles, which had been in operation for two or three years, was discontinued, as the selling price was not sufficient to cover the cost. Paper is still dealt with as well as scrap iron.

During the year 56 tons 9 cwts. of waste paper were sold; Rags, 10 tons 17 cwts.; Bones, 1 ton 3 cwts. 1 qr.; Sacking, 8 tons; Jam jars and bottles, 3,122 dozens; Glass, 11 tons 6 cwts. 1 qr.; Scrap iron, 12 tons 17 cwts. 1 qr.

The waste recovery plant for dealing with meat, butchers' offal, blood, fish waste, &c. was completed and operations commenced in June. Up to the end of the year 72 tons of materials had been dealt with and converted into 25 tons of Meat Meal, Fish Meal, Fats, &c., yielding a profit of £200 after making provision for all expenses, including depreciation of plant, &c. The plant is proving very efficient, and there is a ready sale at remunerative prices for all products.

SANITARY INSPECTION OF DISTRICT.

During the year 1919, 11,342 nuisances were dealt with, compared with 6,429 in 1918. This increase is due chiefly to the return of Inspectors from Military Service.

Table of nuisances dealt with:—

District ...		1	2	3	4	5	6	7	8	TOTAL
Houses completely examined on account of	Infectious Diseases	115	313	366	133	246	55	272	115	1615
	Alleged Nuisances	15	45	29	18	64	41	83	37	332
	House Inspection								13	13
Houses examined only as to	Occupants ...	1				1			1	3
	Drainage ...	56	7		4	1		7	9	84
	Structure ...	27	17						3	47
Total number of houses examined ...		213	357	395	114	311	95	355	154	1994
Total number of houses in which defects were found ...		127	130	154	43	147	50	128	59	838
Number of defects in above houses ...		313	322	613	168	562	144	357	330	2809

The number of Informal Notices served during the year was 2,580; and the number of Statutory Notices 3,159.

Complaints.

During the year, 1,780 complaints were received and investigated, 670 at the office, and 1,110 by the District Inspectors. Of the 670 received at the office, 604 were in writing and duly signed, 52 were in writing but anonymous, and 14 were verbal. On visiting, 143 of the total were discovered to be unfounded.

Included in the total of 670 are 412 referred from the Health Visitors.

The following matters brought to the notice of the Department during the year were referred to the Borough Surveyor:—

Dangerous structures	...	16
Offensive sewer ventilators	...	1
Stopped sewers	...	12
Stopped surface water gullies	...	6
Defective street paving	...	4
Other matters	...	13
Total		52

Overcrowding.

Complaints were received with regard to 16 cases of overcrowding. These were investigated and in 11 instances the fact of overcrowding was established. In 6 of these the overcrowding was subsequently remedied. It has not been found possible to deal with overcrowding in any comprehensive way on account of the shortage of houses and the difficulty of getting accommodation.

A classification of the various defects discovered and dealt with will be found in the following table:—

District ...				1	2	3	4	5	6	7	8	Total Nuisances Found
Houses dirty or overcrowded	...			1	6	21	6	27	1	4	4	70
" damp or dilapidated	...			267	442	719	175	476	78	249	315	2721
" badly lighted or ventilated	...			31	116	106	24	61	6	109	74	527
Drainage defective	...	...	...	11	79	101	15	94	4	47	66	417
" want of	...	...	...	5	—	5	—	3	—	3	2	18
" stopped	...	...	...	95	219	332	42	214	15	126	231	1274
Sinks defective or required	...			42	51	71	10	67	6	31	34	312
Other drainage defects	...	...	...	39	19	144	29	57	11	18	28	345
Privies defective	...	...	...	10	39	2	4	4	—	11	8	78
Additional closets required	...			9	—	—	—	1	—	1	—	11
Defects in W.C's.	...	...	...	110	232	410	68	304	58	128	134	1444
W.C's. without flush	...	...	...	11	29	4	1	5	—	—	1	51
Waste water closets defective	...			—	—	1	—	—	—	—	3	4
Ashpits open...	...	...	...	72	12	39	12	25	18	25	1	204
" required	...	...	...	95	87	73	19	92	30	32	40	468
" structure defective	...			42	27	12	2	3	—	8	4	98
Ashbins defective	...	...	...	144	227	364	84	284	64	274	396	1837
Outbuildings—defects	...	...	...	9	5	79	1	15	—	4	4	117
Paving	...	...	...	68	134	110	21	91	19	28	39	510
Houses without water supply	...			52	76	53	10	108	6	18	71	364
Other house nuisances	...	...	...	27	3	14	1	8	—	6	1	60
Accumulations dealt with	...	...	...	5	60	52	11	52	4	10	17	211
Manure receptacles...	...	...	...	—	3	2	—	—	—	2	3	10
Keeping of animals...	...	...	...	3	7	9	3	15	1	1	5	44
Other outside nuisances	...	...	...	2	14	31	5	43	—	12	10	117
TOTALS				1150	1887	2754	543	2049	321	1147	1491	11342
Other work done	Revisits to Nuisances			4226	3349	3613	628	2272	324	2397	2888	19597
	" infectious disease			44	122	117	30	152	7	64	38	574
	" completion of reports			165	1040	1076	169	1067	137	682	1924	6475
	Visits for other causes			—	95	3	—	127	—	234	—	459

Inspection of Drainage Work.

District ...	1	2	3	4	5	6	7	8	TOTAL
New drains inspected ...	22	28	47	3	15	...	2	18	135
Revisits while work in progress	3	50	22	2	196	...	32	85	390
Drains inspected after reconstruction	31	79	334	10	9	7	22	31	523
Revisits while work in progress	12	39	1	...	16	7	8	73	156
Other visits on account of drainage work	1	22	46	24	...	...	...	22	115

Drain Testing.

Chemical:—Negative	...	...	412
Positive	...	...	172
Colour:—Negative	...	...	35
Positive	...	...	22
Smoke:—Negative	...	...	76
Positive	...	...	12
<hr/>			
Total:—Negative	...	...	523
Positive	...	...	206

Of the above tests 279 were applied on account of infectious disease, 140 were made on receipt of complaints, and 310 were made during the progress of drainage work.

Conversion of Privies.

The conversion of privies, pail closets and other forms of closet was practically at a standstill during the year, as will be seen from the following figures:—

Privies repaired	...	...	...	8
„ abolished	...	...	...	9
„ converted	...	...	...	68
Pails converted	...	...	...	0
Waste water-closets converted	...	...	...	7
New water-closets provided	...	...	...	5

It has not been possible to actively continue this work during the war.

The Council at their Meeting on the 29th May, 1919, decided that payment of the contribution of 25/- formerly made towards the cost of voluntary conversions of privies into water closets should be resumed. During the year allowances were made in twenty-nine cases. This allowance has since been increased to £3, and an allowance of 30/- made in the case of the addition of water supply, and flushing cisterns to water closets without flush.

Legal Proceedings.

Proceedings have been necessary to enforce the compliance of Notices in 23 cases.

	£	s.	d.
In three cases the Court made the necessary Orders and imposed Costs amounting to	3	13	6
In eighteen cases proceedings were withdrawn on payment of Costs, the work having been complied after service of the summons, the Costs amounting to ...	3	3	0
In one case the Court imposed Fines and Costs amounting to	13	8	0
In one instance the Court dismissed the Case with payment of Costs (by the Corporation) amounting to...	2	2	0
The Department carried out work to abate nuisances after the service of Notices which were not complied with by the owners, the total cost of which was	6	17	0

Pig Keeping.

Permission was granted from time to time by the Corporation for the temporary keeping of pigs on premises within the distance prescribed in the Bye-laws, subject to the right of the Council to require the removal within such period as might be decided at any future date.

The number of persons to whom permission was granted was 62

The Council has now withdrawn permission.

Ashbins.

Owners have experienced a difficulty in obtaining ashbins from local dealers to comply with Notices served by the Department requiring sufficient ashes accommodation.

Where it was found at the expiration of the time given on the Notice that the ashbins had not been provided, the Corporation delivered them, and afterwards charged the cost to the owners.

The number thus delivered during the year was 832.

Bye-Laws.

Byelaws are in force in the County Borough with respect to:—

- New Street and Buildings;
- Slaughter Houses;
- Nuisances;
- Common Lodging Houses;
- Dairies, Cowsheds and Milkshops;
- Public Conveniences;
- Houses Let in Lodgings;
- Offensive Trades;
- Removal of Offensive and Noxious Matters.

Offensive Trades.

There are in the area:—

Two Knacker's Yards;

Two Skin Markets;

Several Bone-Burning Works;

Several Marine Stores, Tripe Boilers, and Gut Scrapers.

A list of Offensive Trades has been scheduled by the Authority and Byelaws are in force for their control.

The list of 'Scheduled Trades is as follows:—Fish friers, Potato friers; Dealers in rags, bones, fat, animal skins or other like matter in an offensive condition; manure manufacturers, brick burners, gut scrapers, bone burners, tanners, leather dressers, fat melters or fat extractors, glue makers, size makers (except Potters' sizes), and blood driers.

Several complaints were received during the year in connection with one Bone Burning Works, and it was necessary to take legal proceedings. In this case the Court imposed fines and costs amounting to £13 8s. od.

Complaints were also received respecting another Bone Burning Works. Certain alterations were carried out and since then no further complaint has been received.

Knacker's Yards.

There are now two knacker's yards in the Borough; they have been visited regularly during the year and found in order on each visit. No complaints have been received in reference to them.

The sale of horse flesh for human food in the Borough has now ceased and the slaughterhouse which was licenced for the slaughtering of horses for human food has been licenced for a knacker's yard.

Skin Yards.

There are two skin yards in the Borough, one at Cross Street, Stoke, and one at Mollart Street, Hanley.

One complaint was received during the year, and on investigation it was found to be due to the fact that the owners had to hold a consignment of skins over during the week end owing to congestion of the Railway. There has been no recurrence of the nuisance.

Gut Scraping.

There are three premises specially used for gut scraping in the Borough. They are connected with private slaughter-houses and occupied by wholesale butchers. In each case the premises are kept very clean and on no occasion has there been any cause for complaint on inspection. Most of the butchers who have private slaughter-houses clean the guts from animals slaughtered on their own premises.

An application was received during the year for permission to use certain premises for gut scraping, but owing to the large number of alterations required the matter fell through.

Tripe Cleaning.

There are many tripe shops in the Borough, but in most cases the tripe is bought ready cleaned. The greater part of the tripe cleaned in the Borough is dealt with at three establishments. The premises on various visits have been found clean and in order.

Marine Stores.

There are 18 Marine Stores, lead, metal, rags, bones, and bottles are the chief materials dealt with.

Common Lodging Houses.

There are 16 common lodging-houses in the County Borough of Stoke-on-Trent, being the same number as last year. During the year 771 inspections of common lodging-houses were made—754 by day, and 17 by night. Forty-nine notices were served for the rectifying of minor offences.

The 16 lodging-houses were registered for the accommodation of 447 persons per night. There were, according to the returns sent in, 84,658 persons accommodated during the year, as compared with 76,762 for 1918.

The premises are in the majority of cases old houses which have been adapted for the purpose and one or two of the buildings are in a very poor condition.

Houses Let in Lodgings.

There are now on the register 106 houses. Three hundred and seventy-nine inspections have been made during the year. Sixty-nine defects were found, these have since been attended to.

Smoke Nuisance.

The nuisance arising from the emission of smoke in this area is one of very great importance, the nature of the pottery industry being such as to give rise to the emission of large volumes of black smoke from the ovens and kilns. There are, in the area, about 1,500 ovens and 1,100 kilns, and it is difficult to deal with the smoke nuisance in relation to these. Gas fires for certain purposes are being introduced gradually but a considerable time must elapse before it can be brought into general use on account of the initial cost, the large area required for the erection of the kilns, and the successful adaptation of gas to all purposes. The effects of smoke fumes can be readily observed on the eastern side of the area.

No smoke observations were taken during the year, but the staff has recently been re-organised and smoke observations are now being regularly undertaken. The Council have adopted a scale (as set out below) with regard to the limitation of the duration of black smoke from boiler furnaces:—

Chimneys with 1 boiler in use	...	...	3 mins. in $\frac{1}{2}$ an hour.
Chimneys with 2 boilers in use	...	...	4 „ „
Chimneys with 3 or more boilers in use	...	5	„ „

With regard to ovens and kilns it is not possible at present to adopt any limit. Every case will be dealt with on its merits, such points as repair of the ovens and kilns, the heights of the chimneys, coal used, &c., and the particular process for which the oven or kiln is used, have all to be taken into consideration.

The smoke nuisance is further aggravated by the fact that in this County Borough many of the dwelling-houses of the working classes are built in proximity to the factories.

Schools.

The Medical Officer of Health is not the School Medical Officer.

The schools have recently been inspected in relation to sanitary conditions and water supply. A list of the defects found has been sent on to the Education Authority, and they are being dealt with.

School Closures.

The following is a summary of the school closures during the year:—Defective drains, 1; Mumps, 1; Mumps and Whooping Cough, 4; Influenza, 45; Scarlet Fever, 1; Measles, 14.

In addition to the above, all the children from a few streets where Scarlet Fever was epidemic were excluded from school for one month.

Milk Supply.

Milkshops and Purveyors of Milk.

The following statement shows the number of purveyors of milk registered under the Dairies, Cowsheds and Milkshops Order, 1885:—

Number on register at 31st December, 1919	...	316
Number registered during the year	...	10
Visits paid	...	2073

These premises are usually kept in a cleanly state, and much improvement has been noticed in recent years in the methods of storing and handling the milk. Such points as the covering of the milk receptacles and keeping them in specially prepared cupboards away from flies and dust receive special attention.

Cowsheds.

The number of cowsheds on the register is 74. Visits paid 583. The number of dairies on the register is 73. Visits paid 122.

One plan has been approved for the erection of a new cowshed.

Repairs have been carried out in one shed to remedy the various defects. All the sheds have been lime-washed at least twice during the past year, and more often in a number of cases.

The approximate number of cows throughout the district is 603, as compared with 587 in the previous year.

The cowsheds as a rule are not kept sufficiently clean. Notices are served whenever required for lime-washing and cleaning, in addition to the fixed requirements for lime-washing twice yearly. Such defects as, badly paved floors, insufficient ventilation due to non-opening of ventilators, and defective drainage due to irregular paving, are frequently noticed.

A higher standard of cleanliness should be adopted, and more vigorous action be taken.

The staff has recently been reorganised, and I hope an improvement will soon be made.

The dairies in connection with the farms and cowsheds are as a rule, kept in a satisfactory manner.

Seventy-five samples of milk were taken during the year and all proved genuine on analysis. No samples contained preservative.

On account of a complaint received from the Guardians Institute, Stoke-on-Trent, as to the dirty condition of the milk, a sample was taken and submitted to Professor Delepine, and the following is a report thereon:—

A. CULTIVATION.

Bacteria growing on G.P.B. at 20°C. in 3 days	139,000 per cc.
Bacteria growing on L.L.A. at 40°C. in 48 hours	168,000 „

B. CENTRIFUGALISATION.

Extraneous products ...	10 parts per 100,000 parts.
Cellular products	
Precipitated matter ...	23 „ „
	<hr/>
Total ...	33 „ „

Remarks. “Considering the usual state of the milk supplies at present, the above results should be considered satisfactory. They are much better than the present average.”

No specimens of milk were taken for examination for the presence of Tubercle Bacilli.

The supply of milk in the area has been adequate on the whole. The probability is that on account of the increased cost less milk has been used than was customary before the war. No complaints were received as to shortage of supply. The milk on the whole is of good quality, and the arrangements for supply and distribution adequate. Improvement is required in the methods of handling from the cowsheds to the delivery to the user. More cleanliness and care in the handling to prevent contamination with dust and dirt is desirable.

Milk (Mothers and Children) Order, 1918.

Milk and food has regularly been supplied to Expectant and nursing mothers, and children under 5 years of age, on the certificates of the Medical Officers of the Child Welfare Centres in the Borough.

During the year 1,755 free dinners were supplied to mothers. Large quantities of both fresh and dried milk have been supplied. The cost of the dinners for the year ending 31st March, 1920, was £78 13s. 2d., and the net cost of milk to the Corporation for the same period was £1,292 15s. 6d.

Milk and Cream Regulations, 1912 and 1917.

Report for the Year ending December, 1919.

1. MILK AND CREAM NOT SOLD AS PRESERVED CREAM.

Number of samples examined for the presence of a Preservative:

Milk	...	...	...	86
Cream	...	...	...	2

Number in which a Preservative was reported to be present:

Milk	...	...	...	0
Cream	...	...	...	0

2. CREAM SOLD AS PRESERVED CREAM.

(a) Instances in which samples have been submitted for analysis to ascertain if the statements on the labels as to the preservatives were correct:—

(1) Correct statements made	...	...	2
(2) Incorrect statements made	...	...	0

In two cases the amount of Preservative, viz.: Boric Acid, was under 0.4 per cent., viz.: 0.36, 0.40.

(b) Determinations made of Milk Fat in Cream sold as Preserved Cream:—

(1) Above 35 per cent.	...	...	2
(2) Below 35 per cent.	...	...	0

The Analyst reports as follows:—

No. 1.	49.48 per cent.
No. 2.	53.51 per cent.

(c) Instances where (apart from analysis) the requirements as to labelling of declaration of Preserved Cream in Article V. (1) and the provision in Article V. (2) of the Regulations have not been observed:—

None.

(d) Particulars of each case in which the Regulations have not been complied with and action taken:—

None.

All advertisements, price lists, etc., were found correct.

3. THICKENING SUBSTANCES.

Any evidence of their addition to Cream or Preserved Cream.

Cream	...	..	...	0
Preserved Cream	...	...	...	0

4. OTHER OBSERVATIONS.

Practically all the cream sold in this district is thick cream.

Other Foods.

There is a special Inspector devoting the whole of his time to the inspection of food, and the supervision of premises where food is manufactured and stored, to slaughter-houses, and to other premises, such as Greengrocers' Shops, Tripe Cleaning premises, Cold Stores, Wholesale Fruit Stores, Grocers' Shops, premises in which sausages and meat pies are made, &c.

During the year ending December 31st, 1919, 13,936 visits were paid, compared with 12,460 during the previous year, as follows:—

2,481 visits were paid to slaughter-houses in the Borough.
 4,703 to meat shops, English and Foreign.
 1,425 to fish shops, retail and wholesale.
 748 to markets, and
 4,579 to other premises.

Carcases, etc., Examined.

Carcases of home-killed animals examined, 71,844.

Frozen and chilled meat, etc., 14.

Horse beef, 164 quarters.

Rabbits, English and Foreign, 22,681 couples.

Also a large quantity of bacon, cheese, ham, eggs, butter, fish, tinned goods, fruit and vegetables.

A new class of food met with during the year was frozen skinned rabbits, packed in cases containing 40.

Frozen meat and imported bacons and hams have been a source of the greatest trouble. These were Government controlled.

Weight of meat, &c., surrendered:—

Beef	...	...	...	130,702 lbs.
Bovine organs and offal	...	...	...	16,869 „
Mutton	...	...	...	3,979 „
Veal	...	...	...	2,734 „
Pork	...	...	...	1 598 „
Dates	...	...	...	17,332 „
Tinned Goods	...	...	...	3,280 $\frac{1}{2}$ „
Bacon	...	...	...	4,974 $\frac{1}{2}$ „
Rabbits	...	...	...	2,297 „
Hams	...	...	...	1,972 $\frac{1}{2}$ „
Fish	....	...	...	9,245 „
Eggs	...	...	...	247 „ (1,813 eggs)
Tomatoes	...	...	...	3,712 „
Tripe	...	...	...	126 „
Butter	...	...	...	20 $\frac{1}{4}$ „
Potatoes	...	...	...	13,048 „
Carrots	...	...	...	7,504 „
Cheese	...	...	...	200 „
Bananas	...	...	...	1,100 „
Plums	...	...	...	2,240 „
Currants	...	...	...	84 „
Pickled Pigs feet	...	...	...	112 „
Boneless frozen meat	...	...	...	178 „
Ox tails	...	...	...	20 „
Kidneys	...	...	...	12 „

223,596 „

or 99 tons, 16 cwts., 1 qr., 16 lbs.

The number of carcasses and parts of carcasses condemned as Tuberculous was 341.

Meat seized:—

Hams	...	...	...	1,186 $\frac{1}{2}$ lbs.
Bacon	...	...	...	182 $\frac{1}{2}$ „
Cheese	...	...	...	70 $\frac{3}{4}$ „
Grapes	...	...	...	40 „
Tinned milk	...	...	...	40 „
				<hr/>
				2,440 $\frac{3}{4}$ „

or 1 ton, 1 cwt., 3 qrs., 4 $\frac{3}{4}$ lbs.

The whole of the meat found to be unfit for food is now dealt with at the Meat Eliminator Plant.

Prosecutions.

Five Prosecutions took place during the year. Four of the defendants were convicted and one case was dismissed.

FIRST CASE. A barrel of grapes weighing 40 lbs. was seized in Hanley Market. The owner was summoned before the Stipendiary Magistrate and was fined £10 and costs.

SECOND CASE. A consignment of 644 lbs. of ham was seized, but the case was dismissed, the finding of the Stipendiary Magistrate being that the hams were not deposited or exposed for sale.

THIRD CASE. 494 lbs. of ham and bacon were seized, and the defendants were ordered to pay the costs of the prosecution.

FOURTH CASE. 97 lbs. of ham and bacon were seized, and in this case the defendants were fined £10 and costs for exposing the same for sale.

FIFTH CASE. 70 lbs. of Cheese was seized in Hanley Market, and the owner was fined 50/- and costs for exposing the same for sale.

Slaughter-houses.

There are 64 slaughter-houses in the County Borough (including the Corporation Abattoirs) compared with 67 last year, two having been sold and the license of the other withdrawn. No slaughter-houses which have not been used during the last 3 years are included in the above.

			Total		Registered		Licensed		Vacant
Longton	...	...	13	...	13	...	0	...	1
Hanley	...	...	15	...	10	...	5	...	0
Burslem	...	...	13	...	10	...	3	...	1
Tunstall and Goldenhill			10	...	8	...	2	...	0
Stoke	...	...	5	...	4	...	1	...	0
Fenton	...	...	8	...	8	...	0	...	0
			—		—		—		—
			64		53		11		2
			—		—		—		—

The question of the abolition of private slaughter-houses has engaged the attention of the Corporation as well as the improvement of the present Public Abattoirs. It is very desirable on account of the position and the inadequacy of the present Public Abattoirs that new and up-to-date ones should be provided in a suitable position to serve the whole of the area, and as soon as possible the present private slaughter-houses should be abolished, as they are, most of them, quite unsuitable. It is difficult to inspect meat slaughtered under the present arrangements and constant inspection is required to ensure that the slaughter-houses are kept in reasonable satisfactory condition. The inspection of meat has been more easily carried out while under Government control, as the slaughtering has been done at four centres.

SALE OF FOOD AND DRUGS ACTS.

The number of Samples taken for Analysis by the Public Analyst during the past year was 353, and on this page is a tabulated statement showing the number and nature of the articles dealt with, results of Analysis and of the proceedings instituted under the Acts.

Total Number of Articles submitted for Analysis	Formal	Informal	Results of Analysis	Observations
8 Baking Powders ...	0	8	Genuine	
42 Butter ...	0	42	"	
4 Cheese ...	0	4	"	
33 Coffee ...	0	33	"	
1 Coffee Berries ...	0	1	"	
3 Cocoa ...	0	3	"	
4 Egg Powders (substitute) ...	0	4	"	
2 Cream Preserved ...	0	2	"	
9 Ground Ginger ...	0	9	"	
48 Lards ...	0	48	"	
56 Margarines ...	0	56	"	
8 Margarines ...	8	0	"	
73 Milks ...	73	0	"	
2 Milko ..	0	2	"	
35 Peppers ...	0	35	"	
15 Sugar ...	0	15	"	
6 Tea ...	0	6	"	
4 Vinegar ...	0	4	"	

Genuine, 353. Adulterated, 0. Formal Samples, 81. Informal Samples, 272.

All Informal Samples were taken by Inspector. No Samples were reported adulterated.

The following Table shows the results of
the ANALYSIS OF MILK SAMPLES during the year.

Solids not Fat per cent.	Fat per cent.	Total Solids per cent.	Solids not Fat per cent.	Fat per cent.	Total Solids per cent.
1. 9.05	3.80	12.85	38. 8.89	3.80	12.69
2. 8.63	3.75	12.38	39. 8.73	4.25	12.98
3. 8.57	3.80	12.37	40. 9.24	4.30	12.54
4. 8.67	3.70	12.37	41. 8.93	3.75	12.68
5. 8.57	3.70	12.27	42. 8.85	3.30	12.15
6. 8.57	3.40	11.97	43. 8.56	4.00	12.56
7. 9.33	3.75	13.08	44. 8.88	4.50	13.38
8. 8.80	3.85	12.65	45. 8.50	3.50	12.00
9. 8.12	3.63	11.75	46. 9.10	3.80	12.90
10. 8.56	3.75	12.31	47. 8.96	3.65	12.61
11. 8.68	3.70	12.37	48. 8.79	3.65	12.44
12. 8.60	3.80	12.40	49. 8.83	3.60	12.44
13. 8.75	3.55	12.30	50. 9.06	3.40	12.46
14. 8.33	3.80	13.13	51. 9.04	3.90	12.94
15. 8.75	3.55	12.30	52. 8.60	3.30	11.90
16. 8.78	3.80	12.58	53. 8.59	3.70	12.29
17. 8.75	3.60	12.35	54. 8.95	3.70	12.65
18. 9.01	4.30	13.31	55. 8.74	3.90	12.64
19. 8.99	3.75	12.74	56. 8.66	4.30	12.96
20. 8.60	3.35	11.95	57. 8.96	4.70	13.66
21. 8.26	7.30	15.56	58. 8.88	4.95	13.83
22. 8.54	4.20	12.74	59. 9.16	3.95	13.11
23. 8.91	4.05	12.96	60. 8.97	4.00	12.97
24. 8.73	3.65	12.38	61. 8.69	4.15	12.84
25. 8.80	3.85	12.65	62. 8.85	3.60	12.45
26. 8.82	3.90	12.72	63. 8.73	6.75	15.48
27. 8.81	3.55	12.36	64. 8.99	3.70	12.69
28. 8.44	4.30	12.74	65. 9.14	3.70	12.84
29. 8.55	3.40	11.95	66. 8.99	4.40	13.39
30. 8.83	3.60	12.43	67. 8.73	4.25	12.98
31. 8.63	3.80	12.43	68. 9.22	4.20	13.42
32. 8.80	3.30	12.10	69. 9.12	5.00	14.12
33. 8.87	3.30	12.17	70. 8.96	4.60	13.56
34. 8.79	4.30	13.09	71. 8.16	8.75	16.91
35. 8.36	7.15	15.51	72. 8.75	3.95	12.60
36. 8.84	3.40	12.24	73. 8.96	3.20	12.16
37. 8.82	3.40	12.22	74. 8.70	3.75	12.45

Preservatives in Milk, Butter, Margarine, etc.

During the year the Analyst reports that none of the milk samples contained any preservatives.

Twenty-eight samples of Butter were purchased containing Boric Acid:—0.45, 0.11, 0.29, 0.13, 0.08, 0.11, 0.05, 0.11, 0.10, 0.06, 0.19, 0.12, 0.58, 0.45, 0.07, 0.22, 0.08, 0.04, 0.11, 0.10, 0.15, 0.08, 0.08, 0.10, 0.12, 0.08, 0.25, 0.26.

Sixty-four samples of Margarine were purchased containing Boric Acid:—0.36, 0.37, 0.26, 0.30, 0.25, 0.21, 0.14, 0.16, 0.15, 0.13, 0.15, 0.17, 0.14, 0.18, 0.09, 0.11, 0.12, 0.09, 0.18, 0.10, 0.19, 0.09, 0.06, 0.06, 0.07, 0.14, 0.13, 0.11, 0.25, 0.04, 0.12, 0.08, 0.12, 0.15, 0.25, 0.22, 0.26, 0.32, 0.32, 0.19, 0.24, 0.29, 0.19, 0.21, 0.23, 0.13, 0.10, 0.11, 0.12, 0.16, 0.07, 0.17, 0.10, 0.12, 0.12, 0.17, 0.08, 0.12, 0.08, 0.29, 0.27, 0.21, 0.23, 0.41.

All samples taken during the year have proved to be genuine. This does not mean in my opinion that there is no adulteration of milk or foods in the area. Considerable astuteness is necessary, and the number of samples of milk taken has been insufficient. The staff has recently been re-organized, and more attention will be given in future to this section of the work.

Registration of Margarine Dealers.

There were no premises added to the register during the year, the number of persons registered being 45; and 99 visits were paid. There are no Margarine Factories in the Borough.

Fertilizers and Feeding Stuffs Act, 1906.

One sample of Fertilizer was taken. The Analyst reported the same to be unsatisfactory.

Rag Flock Act.

Two samples were taken during the year, and both conformed to the standard of cleanliness.

Canal Boats.

During the year 1,236 Canal Boats have been inspected in this district. On the whole they were found to be clean, well ventilated, and in a good state of repair.

The accommodation provided on these 1,236 canal boats was as follows:—

3,261 persons, being an average of 2.63 per boat. The number of persons in occupation was:—3,047, viz.: males, 1,407; females, 923; children, 717; being 46.1 per cent. males; 30.3 per cent. females; 23.5 per cent. children; or an average of 2.46 persons in occupation per boat; but, if we count two children as one adult, it reduces the average in occupation to 2.17.

Of the 717 children on board, there were 374, or 12.27 per cent. over 5 years, and therefore of school age, 316, or 10.3 per cent. were boys, and 401, or 13.1 per cent. were girls.

These canal boats were registered to carry the following number of persons:—

11 boats were registered to carry 6 persons.

15	”	”	”	5	”
4	”	”	”	$4\frac{1}{2}$	”
227	”	”	”	4	”
15	”	”	”	$3\frac{1}{2}$	”
784	”	”	”	3	”
6	”	”	”	$2\frac{1}{2}$	”
1	”	”	”	2	”

173 were not registered or void.

1236

132 have a fore cabin, being 10 per cent. of the canal boats inspected.

3 were registered to carry 3 persons.

16	”	”	2	”
113	”	”	1	”

132

In 86 cases the Captains were also owners of their canal boats, in one case a Captain owned and worked a pair of canal boats.

121 pairs of canal boats were worked by one family, and in 10 cases one family worked three canal boats (occasionally with assistance).

There were 20 canal boats inspected which had female captains. Infringements of Acts and Regulations:—

(a) Registration	...	...	...	0
(b) Notification of change of master	...	...	...	0
(c) Certificates	...	...	...	26
(d) Marking	...	...	...	5
(e) Overcrowding	...	...	...	4
(f) Separation of sexes	...	...	...	1
(g) Cleanliness	...	...	...	11
(h) Ventilation	...	...	...	0
(i) Painting	...	...	...	2
(j) Provision of water cask	...	...	...	9
(k) Removal of bilge water	...	...	...	1
(l) Notification of infectious disease	...	...	...	0
(m) Admittance of Inspector	...	...	...	0

59

No Legal proceedings were taken under the Canal Boats Acts and Regulations during this period.

Notices were served in 51 cases for 59 contraventions. The whole of these, along with 4 notices outstanding December, 1918, have been returned duly signed, signifying that the said contraventions had been remedied.

There were no cases of infectious disease met with on a canal boat during this period.

There are at present upon the register, according to the revised list:—

- (a) 494 canal boats known to be working;
- (b) 330 canal boats that are either cancelled, broken up, or cannot be traced.

824 Total number on register.

(a) There are no motor propelled canal boats registered by this authority.

(b) Two canal boats were registered during the past year:—

Structural alterations ...	...	...	1
New canal boat ...	...	...	1
			<hr style="width: 10%; margin-left: auto;"/>
Total ...	...	...	2

INFECTIOUS DISEASES.

The following is a list of the diseases which at present have to be notified to the Medical Officer of Health:—Scarlet Fever, Diphtheria, Membraneous Croup, Typhoid Fever (Enteric and Paratyphoid Fever), Puerperal Fever, Cholera, Erysipelas, Smallpox, Typhus Fever, Relapsing Fever, Continued Fever, Plague, Cerebro-Spinal Fever, Acute Poliomyelitis, Pulmonary Tuberculosis, Other Forms of Tuberculosis, Ophthalmia Neonatorum, Malaria, Dysentery, Trench Fever, Acute Primary Pneumonia, Acute Influenzal Pneumonia, Acute Encephalitis Lethargica, Acute Polio-Encephalitis.

Table 7.—Cases of Infectious Diseases notified during the year 1919.

47

Notifiable Disease	Number of Cases Notified							Total Cases notified in each Locality of the District						Total Cases removed to Hospital	
	At all Ages	At Ages—Years						Burslem	Fenton	Hanley	Longton	Stoke	Tunstall		
		Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65								65 and upwards
Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria and Membranous Croup	466	2	82	225	97	54	6	55	77	182	14	112	26	388	—
Erysipelas	127	1	2	9	19	40	43	37	18	26	11	25	10	1	—
Scarlet Fever	807	5	179	551	57	12	3	198	148	276	50	104	31	660	—
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever	10	—	—	4	1	2	3	—	—	8	—	1	1	8	—
Continued Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever	16	—	—	—	4	12	—	5	1	3	3	2	2	—	—
Cerebro Spinal Meningitis	8	1	3	1	2	1	—	3	2	2	1	—	—	5	—
Poliomyelitis	3	—	2	1	—	—	—	—	—	1	1	—	1	—	—
Pulmonary Tuberculosis	742	3	15	115	138	356	107	135	149	226	116	87	29	—	—
Other forms of Tuberculosis	100	5	22	46	15	7	4	22	18	33	14	9	4	—	—
Ophthalmia Neonatorum	325	325	—	—	—	—	—	87	36	123	37	18	24	—	—
Measles	1505	57	658	780	5	5	—	218	226	357	510	190	4	—	—
German Measles	10	—	7	2	1	—	—	3	4	—	—	3	—	—	—
Pneumonia Primary	273	9	59	58	31	69	32	57	49	92	2	46	27	—	—
Pneumonia Broncho	163	27	78	31	8	8	9	4	69	55	—	17	18	—	—
Pneumonia Influenzal	358	5	45	43	53	131	62	68	59	115	20	68	28	—	—
Malaria	360	—	—	—	86	254	20	88	44	93	47	51	37	3	—
Dysentry	22	—	—	—	3	15	4	4	4	5	5	2	2	—	—
Trench Fever	2	—	—	—	—	1	1	—	2	—	—	—	—	—	—
Acute Polio-encephalitis	1	—	—	1	—	—	—	1	—	—	—	—	—	—	—
TOTALS	5300	440	1152	1867	520	968	295	985	906	1598	832	735	244	1065	—

Isolation Hospital— Name and Situation	{	Stoke and Stoke Rural Joint Hospital, Bucknall	...	Total available beds, 264
		Stanfield Sanatorium, Burslem	...	" " 65
		North Stafford Joint Smallpox Hospital	...	" " 54

TABLE 8. Showing the numbers of cases and deaths from Scarlet Fever, Diphtheria and Enteric Fever since 1910.

		SCARLET FEVER		DIPHTHERIA		ENTERIC FEVER	
		Cases	Deaths	Cases	Deaths	Cases	Deaths
1910	...	2005	66	637	83	122	30
1911	...	1687	63	819	90	139	26
1912	...	696	29	514	60	139	27
1913	...	266	4	634	95	103	23
1914	...	223	1	528	79	86	18
1915	...	874	28	932	104	48	12
1916	...	722	24	865	108	31	6
1917	...	387	14	622	66	20	4
1918	...	260	8	508	60	21	5
1919	...	807	31	466	29	10	3

Scarlet Fever.

Number of cases notified	...	...	...	807
Number of deaths	...	...	...	31
Case fatality per cent.	...	...	...	3.8
Number of cases removed to hospitals	...	...	...	660
Percentage of cases removed	...	...	...	81.8

The attack rate for the County Borough during the year was 3.37 per 1,000 of the population.

Table showing the number of cases in the various districts of the Borough:—

Districts		Burslem		Fenton		Hanley		Longton		Stoke		Tunstall		County Borough	
Year		Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
1917	...	104	4	46	1	81	1	57	1	43	1	56	6	387	14
1918	...	112	4	36	—	34	1	30	2	33	1	15	—	260	8
1919	...	198	15	148	1	276	10	50	—	104	5	31	—	807	31

The disease was more prevalent during the year than for the previous three years.

The attack rate per 1,000 of the population for the various districts was as follows:—Burslem, 4.69; Fenton, 5.60; Hanley, 4.11; Longton, 1.32; Stoke, 2.73; Tunstall, 1.11. Showing that the disease was most prevalent in Burslem and Fenton.

The percentage of removals to the Hospital was 81.8, as compared with 86.9 for the previous year.

There were five "Return Cases" of Scarlet Fever, all occurring within a fortnight of the return of a case from Bucknall Hospital.

The mortality rate in the district during 1919 was 0.12. The mortality rate for the disease in England and Wales was 0.03 per 1,000 of the population, and in the 96 great towns 0.04 per 1,000.

All cases are promptly visited on notification, and removal to Hospital urged where there are not means of isolating the patients. Disinfection is carried out promptly and thoroughly. The head teachers of the elementary schools are advised of the occurrence of Scarlet Fever among the scholars, or in the families of the scholars, and such scholars are excluded from school until the expiration of the time advised in the memorandum of the Local Government Board and the Board of Education. Every case is kept under supervision until disinfection is completed. It is understood that all information transmitted from this Department is promptly sent on to the School Medical Officer.

In cases where it is noticed that any unusual number of cases of infectious diseases is occurring among the children attending any particular school, a note is at once sent to the School Medical Officer drawing his attention to the fact. In any case where it is necessary the school is visited and contacts examined by the Medical Officer of Health.

Leaflets containing instructions for preventing the spread of the disease, and extracts from the Acts of Parliament relating to infectious diseases, are left at each infected house.

The case fatality for the year was 3.8 per cent., compared with 3.0 in 1918.

In no case was the outbreak of the disease attributable to anything other than personal contact.

Diphtheria.

Number of cases notified	...	...	...	466
Number of deaths	...	...	...	29
Case fatality per cent.	...	...	...	6.2
Number of cases removed to hospital			...	388
Percentage of cases removed	...	...	...	83.2

The attack rate for the Borough was 1.94 per 1,000.

The disease was less prevalent during the year than for many years previously, and the number of deaths correspondingly few. The case fatality per cent. was much lower also than for many years, shewing that the disease was of a milder type.

Districts	Burslem		Fenton		Hanley		Longton		Stoke		Tunstall		County Borough	
Year	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
1917 ...	139	17	86	15	187	17	33	2	124	7	53	8	622	66
1918 ...	178	25	87	9	113	7	17	3	62	4	51	12	508	60
1919 ...	55	2	77	6	182	9	14	1	112	6	26	5	466	29

The attack rate per 1,000 of the population for the various districts was as follows:—Burslem, 1.35; Fenton, 2.91; Hanley, 2.71; Longton, 0.37; Stoke, 2.97; Tunstall, 0.92. Showing that the disease was least prevalent at Longton and Tunstall, but was most prevalent in Stoke and Fenton.

The death rate from Diphtheria in the County Borough was 0.12, compared to 0.14 in the 96 great towns.

Personal contact has again seemed to play the chief part in the spread of the disease.

No schools were closed on account of the prevalence of the disease among the scholars.

All cases are promptly visited on notification, and removal to hospital carried out where isolation is not up to a fair standard, and also in cases of serious illness or where tracheotomy is required. The County Borough provides means for carrying out promptly bacteriological examinations. Arrangements have been made for a gratuitous supply of anti-toxin at any time, day or night, to medical men on demand, and a fee is paid for its use, both for purposes of treatment and prevention. Disinfection is carried out promptly and thoroughly. The head teachers of schools are kept regularly informed of the occurrence of cases among the school children and contacts, and they are dealt with according to the Memorandum of the Local Government Board and the Board of Education. The head teachers are informed in all cases as to the date on which patients and contacts may return to school. Leaflets containing instructions for preventing the spread of the disease, and extracts from the Acts of Parliament relating to infectious diseases, are left with the householder in each case.

Bacteriological examination of swabs from suspected cases is made free of charge to medical men. In 1919, 97 examinations were made, with a positive result in 6 cases; in 1918, 48 examinations were made, with positive results in 6 cases.

During the year 109 patients were injected with anti-toxin at their homes by their medical attendants. The amount of serum used in each case averaged 2,936 units.

118 contacts were injected for preventive purposes, the amount of serum used averaged 1,492 units in each case.

The cost to the Corporation was £18 17s. 6d. paid to medical men for injecting serum, and £47 5s. 8d. paid to chemists for the supply of the serum.

Enteric Fever.

Number of cases notified	...	...	...	10
Number of deaths	...	...	...	3
Case fatality per cent.	...	...	...	30.0
Number of cases removed to hospitals	...	...	...	8
Percentage of cases removed	...	...	...	80.0

The attack rate for the Borough was 0.04 per 1,000 of the population.

Districts	Burslem		Fenton		Hanley		Longton		Stoke		Tunstall		County Borough	
Year	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
1917	7	2	1	—	4	—	2	2	5	—	1	—	20	4
1918	5	—	2	—	10	3	—	—	1	—	3	2	21	5
1919	—	1	—	1	8	—	—	—	1	1	1	—	10	3

There is a very satisfactory and steady decline in the prevalence of this disease in the area, and a smaller number of cases were notified than in any previous year. In no case was the source of infection discovered.

The disease was most prevalent in Hanley, where the attack rate was 0.11 per 1,000 of the population, in Burslem it was nil, in Fenton nil, in Longton nil, Tunstall 0.03, and Stoke 0.02.

No case of Enteric Fever has occurred in Longton for two years.

The death rate from Enteric Fever in the 96 great towns during the year 1919 was 0.01 per 1,000. In Stoke-on-Trent it was 0.01.

Bacteriological examinations were made by the Corporation Bacteriologist in 1 instance, with a negative result. In 1918 2 examinations were made, with a negative result in each case.

The death allocated to Burslem and also that allocated to Fenton occurred in Cheddleton Asylum.

Erysipelas.

There were 127 cases notified during the year. There were 5 deaths from this disease. Last year 111 cases were notified with 4 deaths. One case was removed to the Isolation Hospital.

Enquiries are made into these cases and the sanitary condition of the houses attended to.

Cerebro Spinal Fever.

Eight cases of Cerebro-Spinal Fever were notified during the year, 6 of whom died.

The first was that of a female child aged 5 months. The case was notified 16 days after the onset of the disease, and was removed to the Isolation Hospital, Bucknall, on the same day. The diagnosis was not confirmed. On discharge from Hospital she was stated to be fairly well.

The second case was that of a male child aged 5 years. The case was notified 8 days after the onset of the disease and died on the day it was notified. There was no confirmation of the diagnosis in this case.

The third case was that of a female child aged 23 months. The case was notified 22 days after the onset of the disease and died the day after. The diagnosis was not confirmed.

The fourth case was a male child aged 13 months. The diagnosis was not confirmed. The patient died at home and the first notification I had of the case was the receipt of the Returns of Deaths from the Registrar.

The fifth case was a female child aged 20 months. The notification was received 7 days after the onset. There was no confirmation of the diagnosis, and the Medical Superintendent of the Isolation Hospital, Bucknall, diagnosed Tubercular Meningitis. Complete recovery is reported.

The sixth case was a male aged 15 years. The case was notified 1 day after the onset, and the diagnosis was confirmed. This case was notified from the North Stafford Infirmary, and was removed to the Isolation Hospital, Bucknall, and died seven days after.

The seventh case was a male aged 43 years. The case was notified 4 days after the onset of the disease, but had then already been removed to the Isolation Hospital, Bucknall, two days previously. The case proved fatal on the day the notification was received and the diagnosis was not confirmed.

The eighth case was a female aged 19 years. The case was notified 14 days after the onset, and was removed the same day to the Isolation Hospital, Bucknall, and died 7 days later. The diagnosis in this case was not confirmed.

In all cases full enquiries were made into the circumstances of the cases at home, but the source of infection could not be traced in any of the cases. No secondary cases occurred.

Disinfection was carried out in all cases, the sanitary condition of the houses attended to and contact children excluded from schools for two weeks.

Acute Encephalitis Lethargica and Acute Polio-Encephalitis.

Two cases of Acute Encephalitis Lethargica and 1 case of Acute Polio-Encephalitis were notified during the year.

The first case of Acute Encephalitis Lethargica was a male aged 34 years. The case was notified 8 days after the onset of the disease. The patient is stated to have recovered with no after effects.

The second case of Acute Encephalitis Lethargica was a female aged 45 years. The case was notified 9 days after the onset and died 13 days after the receipt of the notification.

The case of Acute Polio-Encephalitis was a male child aged 5 years. The case proved fatal, and the first intimation to me was the receipt of the Return of the Death from the Registrar.

Malaria, Dysentery and Trench Fever.

The numbers of cases of these diseases notified were as follows: Malaria, 360; Dysentery, 22; Trench Fever, 2. With reference to Malaria and Trench Fever, all the cases occurred in men who had been abroad serving in the Army, and in no case had the disease developed among the civilian population. With the exception of one case this also applies to Dysentery. In this particular instance the disease occurred in a woman aged 63 years, the case was specially enquired into, but the source of infection could not be traced. The history of the case was such as rather to point to the woman having suffered for years from collitis, and having had a serious and aggravated attack.

Influenza.

The number of cases notified during the year was:—Influenzal Pneumonia, 358; and Pneumonia and Broncho Pneumonia, 436. The number of deaths was: Influenza, 447, being equal to a rate of 1.87 per 1,000 of Population; and Pneumonia and Broncho Pneumonia 354, being equal to a rate of 1.43 per 1,000 of the population.

The epidemic which occurred in the early part of the year was fully reported upon in the last year's Annual Report. During the year an Emergency Committee was appointed to deal with any possible epidemic, a list of nurses willing to assist compiled, and leaflets for distribution kept in readiness. A supply of Anti Influenza Vaccine is now kept at the Health Office for supply to any medical man requiring it.

Disinfection.

Disinfection is carried out at one Central Station where there are two Washington-Lyons Steam Disinfectors with a constant supply of steam. There are employed in this work five men with a motor van with two bodies, and a horse van for use when necessary.

The method of disinfection adopted is as follows:—all bedding, clothing, etc. which has been exposed to infection is removed for

disinfection at the Station after all cases of infectious disease (including Tuberculosis), excepting Measles. The surfaces of infected rooms are sprayed with a solution of Izal at a strength of 1 in 20, or fumigated by means of formalin lamps.

The cost of disinfection during the year was £1,051. There is no Cleansing Station in the area—one is required.

The total number of houses disinfected during the year was 1,559, and the number of rooms in such houses, 1,756. Some 14 rooms in 4 schools were sprayed. The number of articles passed through the disinfector totalled 16,008. 17 Police Cells were disinfected during the year.

Respiratory Diseases.

During the year 1919 there were 964 deaths from Respiratory Diseases, giving a death rate of 4.02 per 1,000 of the population, as compared with 4.63 for the year 1918.

The distribution of these deaths is shown in the following table:

Name of District	No. of Deaths from Bronchitis	No. of Deaths from Pneumonia	No. of Deaths from Fibroid Phthisis	No. of Deaths from Pluery	No. of Deaths from other Respiratory Diseases	TOTAL	Rate per 1000
BURSLEM ...	92	71	—	1	6	170	4.03
FENTON ...	47	40	—	—	3	90	3.40
HANLEY ...	182	98	1	3	12	296	4.41
LONGTON ...	97	67	1	—	12	177	4.69
STOKE ...	70	36	—	1	1	108	2.84
TUNSTALL...	75	42	—	2	4	123	4.38
WHOLE BOROUGH ...	563	354	2	7	38	964	4.02

The death rate from Bronchitis in the County Borough was 2.35 per 1,000 of the population. There were 563 deaths from this disease, as against 425 last year. The rate for 1918 was 2.04.

The death rate from Pneumonia was 1.47 per 1,000 of the population. The rate for 1918 was 2.34.

Alcoholism.

Alcoholism caused 14 deaths during 1919, 13 of these being certified as due to Cirrhosis of the Liver. In 1918 there were 11 deaths due to Alcoholism.

Lead Poisoning.

This is an affection which is associated with pottery manufacture. Through careful supervision, and under the Special Rules of the Home Office, lead poisoning has diminished. There was

an increase in the number of cases in 1910 and 1911, but the number diminished in 1913, and was considerably lower in 1914, 1915, 1916, 1917 and 1918. The year 1919 shows an increase.

According to the Report of the Departmental Committee there were engaged in 1907, as lead workers under the Earthenware and China Rules in North Staffordshire, 5,299 persons (3,371 males and 1,928 females). In 1906 there were 85 cases of lead poisoning; in 1907, 82 cases; in 1908, 91 cases; in 1909, 49 cases; in 1910, 63 cases; in 1911, 78 cases; in 1912, 74 cases; in 1913, 55 cases; in 1914, 23 cases; in 1915, 22 cases; in 1916, 21 cases; in 1917, 16 cases; in 1918, 8 cases; and in 1919, 25 cases.

Deaths from Lead Poisoning with Occupations:—

Potters' Placers	...	...	...	2
Potters' Firemen	...	...	...	1
Potters' Ovenmen	...	...	...	1
Potters' Dippers	...	...	...	2
Colour Mixers	...	...	...	1
				—
				7

In 1917 there were seven deaths attributed to Lead Poisoning. In 1918 there was one death only.

TUBERCULOSIS.

Phthisis Pulmonalis.

Seven hundred and forty-two cases were notified in accordance with the provisions of the Public Health (Tuberculosis) Regulations.

The cases and deaths were distributed as follows:—

		Number notified	Number of Deaths	Death Rate per 1000 of population
Burslem	...	135	60	1.42
Fenton	...	149	27	1.02
Hanley	...	226	89	1.32
Longton	...	116	47	1.24
Stoke	...	87	34	0.89
Tunstall	...	29	26	0.93

The following Table shows the period which elapsed between the Notification of Phthisis and the Death in 117 cases out of the 283 which died during the year:—

Dead when notified	...	...	...	12
Died within 1 week of notification	...	...	...	13
Died from 1 week to 1 month of notification	...	...	...	29
Died from 1 month to 2 months of notification	...	...	...	23
Died from 2 months to 3 months of notification	...	...	...	8
Died from 3 months to 4 months of notification	...	...	...	17
Died from 4 months to 5 months of notification	...	...	...	9
Died from 5 months to 6 months of notification	...	...	...	6

There were 283 deaths from Phthisis during the year, giving a death rate of 1.18 per 1,000; in 1918 there were 325 deaths and a death rate of 1.56 per 1,000. In England and Wales, in 1918 the death rate was 1.34 per 1,000.

The average death rate from Phthisis for England and Wales for 1912—1914 was 1.03 per 1,000 of the population, for 1915 it was 1.16 per 1,000, for 1916, 1.18, for 1917, 1.25, and 1918, 1.34.

Fifty-nine deaths occurred in persons aged 15 to 25, and 196 in persons between the ages of 25 and 65 years.

One hundred and fifty-four Bacteriological Examinations were made in 1919, and tubercle bacilli were found in 33 of the specimens submitted.

During the year 1,000 visits were paid by the Health Visitors to cases of Tuberculosis.

There were 78 deaths in the year from forms of Tuberculosis other than Phthisis, this being equal to a rate of 0.32 per 1,000 of the population.

The total death rate from all forms of Tuberculosis, including Phthisis, was 1.50 per 1,000. The deaths from Phthisis were equal to 7.3 per cent. of all the deaths in the County Borough, and the total deaths from all forms of Tuberculosis were equal to 9.2 per cent. of all the deaths. For England and Wales as a whole the corresponding figures were in 1918 7.6 per cent. and 9.6 per cent.

Other Forms of Tuberculosis.

There were 100 cases notified of other forms of Tuberculosis, and 78 deaths, giving a rate of 0.32 per 1,000 of the population. Of these deaths 14 occurred in children under one year of age, and 20 among children between one year and five years.

Table showing the number of cases notified as suffering from other forms of Tuberculosis during 1919.

	Under 1	1—5	5—15	15—25	25—45	45—65	Over 65	Totals
Tabes Mesenterica ...	2	7	9	3	2	...	1	24
Tubercular Meningitis ...	3	8	3	1	...	...	...	15
Glands ... ..	...	5	14	8	1	...	...	28
Osseous ... ..	...	4	12	5	3	1	...	25
Skin ... ..	...	...	4	2	..	...	...	6
General ... ..	...	1	..	...	...	1	...	2
Other Forms ... ..	...	...	...	...	..	...	...	...
Totals	7	25	42	19	6	2	1	100

Dr. Magill, the Tuberculosis Officer, returned from Military Service in May, 1919, and there is an Assistant Tuberculosis Officer.

The Tuberculosis Dispensary was opened in Stoke on the 24th June, 1913; it consists of Waiting, Consulting, and Examination Rooms, with a Laboratory.

Hours of attendance: The Dispensary is open for the treatment of patients on Monday nights and Friday mornings and afternoons; new patients are seen every Tuesday and Thursday morning between 9 and 12.

The Branch Dispensary at Longton was opened on the 20th August, 1919, and is open every Wednesday afternoon from 3 p.m.

A second Branch Dispensary will be opened at Burslem as soon as accommodation can be found.

During the year there were 7,419 attendances at the Dispensary.

Number of Patients dealt with:—

		Males	Females	Total
Adults—Insured	... ..	513	106	619
„ Non-insured	... ..	15	56	71
Children	... ..	109	117	226
		<hr/>	<hr/>	<hr/>
		637	279	916

The foregoing number was from the following districts:—

Stoke	... ..	132
Hanley	... ..	304
Burslem	... ..	147
Tunstall	... ..	39
Fenton	... ..	155
Longton	... ..	139
		<hr/>
		916

Extracts from the Report of the Tuberculosis Officer:—

“All cases on first notification are visited by the Health Visitors and then passed on to the Dispensary. The Dispensary is the main factor in the scheme, and when once a case has been reported it is kept under observation directly or indirectly until the case is considered cured, or the patient removes to another district or dies. All suitable cases are examined at the Dispensary and put on treatment. Insured cases are reported direct to the Insurance Committee.

There are two Tuberculosis Nurses who visit frequently all Tuberculosis cases under treatment at the Dispensary, and enquire into contact cases, who are requested to attend the Dispensary for examination.

The Tuberculosis Dispensary serves as (1) a receiving house and diagnosis centre; (2) a treatment centre for certain cases; (3) a clinic for examination of contacts; and a centre from which after-care is undertaken. The treatment of

Tuberculosis is a prolonged and serious matter. Symptomatic treatment is not undertaken at the Dispensaries.

A number of cases of Discharged Soldiers have been referred for examination by the Pensions Committees, and this has entailed a large amount of extra work, the number of cases examined being 309.

The large number of patients attending the Dispensary has taxed the accommodation. The opening of Longton Dispensary has assisted materially.

The number of attendances at the Dispensary has steadily increased from 4,693 in 1913 to 7,419 in 1919.

DOMICILIARY TREATMENT.—Insured patients who prefer to continue under their own doctor, or who are unable to attend the Dispensary are put on Domiciliary treatment. Special efforts are made to isolate the patients in their own homes. When visiting these cases one is struck with the overcrowding sometimes found, and the insufficiency and unsuitability of the house accommodation available. The advanced tubercular case who prefers to remain at home is very difficult to isolate, and the little good that is being done for the early stage cases is undone by the spread of infection by the dangerous advanced cases. Many people are being infected by these cases, who are sowing germs by visiting friends and in other ways.”

STANFIELD SANATORIUM consists of three blocks, with accommodation for 65 patients. One block is used for male adults and another for female adults; both of these blocks are provided with sleeping verandahs and three double shelters. The other block of 18 beds, which has no verandah, is used for the treatment of children. On the whole the children are found to be mentally up to the average, though backward through loss of school from physical disability. They quickly respond to training and teaching.

The average length of stay is about three months. Special arrangements have been made for the early admission of Discharged Soldiers (Priority Cases) to the Sanatorium, but it has been impossible to admit them as quickly as desirable, and there is always a number on the waiting list. Plans have been submitted and approved by the Ministry of Health for the erection of another block containing 24 beds.

ADMISSION TO STANFIELD SANATORIUM:—

Males	Females	Children	Total
106	96	81	283

CONDITION ON DISCHARGE:—

Improved	Stationary	Worse	Deaths	Total
203	36	23	4	266

BLENCATHRA SANATORIUM, CUMBERLAND.

Selected cases were sent to this Sanatorium during the year, by the Insurance Committee.

CHESHIRE JOINT SCHEME.

The County Borough has joined with the County of Chester and County Boroughs of Cheshire in a formation of a Joint Board for the erection of a Sanatorium. The Sanatorium will consist of 240 beds, the number to be allocated to the County Borough being 48.

PROVISION OF SLEEPING SHELTERS FOR CONSUMPTION.

Sleeping shelters are provided by the Corporation for the use of consumptive patients at their own homes if the surroundings are suitable.

AFTER-CARE.

A Voluntary After-Care Committee, consisting of members from the Sanatorium Benefit Committee, of the Insurance Committee, the Corporation, the Board of Guardians, and other organisations, is doing good work in looking after the needs of those requiring assistance. Milk and clothing have been supplied to many cases, and several persons referred to other bodies for help.

SURGICAL TUBERCULOSIS.

The Corporation have arranged with the North Stafford Cripples' Aid Society for the treatment of cases of Surgical Tuberculosis at their Institution in the Borough and the Baschurch Institution, both of which are approved by the Ministry.

The Medical Officer of the Institution is the Surgical Tuberculosis Officer of the Corporation. During the year ending 31st March, 1920, an average of 3 patients was in daily residence at Baschurch, and 15 at the Institution at Hartshill.

A total of 45 Tuberculosis Cases were dealt with in the Institutions, and a total of 171 at the Out Patients' Department.

The extension of this work is under consideration.

Venereal Diseases.

A clinic was established at the North Staffordshire Infirmary, and work was commenced there on November 1st, 1918. The clinics are held four times weekly, twice for men and twice for women. The total cost to the Borough was £1,890 during the year 1919, 75 per cent. of which will be refunded by the Ministry of Health. Two medical men are in attendance at each clinic. The hours of the Clinics are:—

For men:—Monday, 4 to 6 p.m.

Friday, 5 to 7 p.m.

For women:—Wednesday, 5 to 7 p.m.

Saturday, 12 noon to 2 p.m.

For the purposes of pathological work, arrangements have been made with Professor Dean, of the Manchester University.

The following is the return as to the work done at the clinics during the year 1919:—

(1) Total number of persons dealt with during the year at, or or in connection with the Out-patient clinic and suffering from:—

(a) Syphilis	...	...	...	710
(b) Soft Chancre	...	...	...	16
(c) Gonorrhœa	...	...	...	330
(d) Conditions other than venereal				123
				—+—
Total	...	...	...	1179

(2) Total attendances of all patients during the year at the Out-patient clinic: County Borough, 5,803; Staffs. County, 1,771; and outside the district, other than the County, 75.

(3) Aggregate number of "In-patient days" of treatment during the year: County Borough, 94; Staffs. County, 70.

The Council has under consideration the question of the extension of the facilities for curative and preventive treatment. It is proposed that a whole-time Venereal Diseases Officer should be appointed to the County Borough, that a clinic should be established at Longton, and one at Burslem, and that the whole-time Venereal Diseases Officer should work in co-operation with the Medical Officers at the North Staffs. Infirmary, and have charge of the branch clinics as well as the arrangements for intermediate treatment at the North Staffs. Infirmary. The whole scheme is being carried out in accordance with the requirements of the Ministry of Health.

Six medical men in the Borough are registered for the free supply of Salvarsan and its substitutes. These drugs are supplied on application by the medical practitioner to the Senior Medical Officer of the clinic at the North Staffs. Infirmary.

Five medical men have been supplied with Salvarsan or its substitutes. The number of doses of Novarsenobillon being 809, the doses varying in strength from .15 grammes to .9 grammes. The number of doses of Kharsivan was 47, the strength used being .6 grammes.

The only propaganda work which has been done has been the distribution of information to Societies and individuals in the area, where such information was thought likely to be useful. It is proposed to extend this work when the Branch Dispensaries are available.

No action has been taken in the district under the Venereal Diseases Act, 1917.

Statement of Vaccination for the year ending 1919.

(Furnished by the Vaccination Officers.)

District	Births	Successfully Vaccinated	Insusceptible	Had Smallpox	Died Unvaccinated	Postponed by Medical Authority	Certs. of Exemption (conscientious objection)	Removals Certified	Removals not found and not accounted for	Not dealt with for various reasons
BURSLEM ...	854	351	...	...	70	...	377	8	48	...
FENTON ...	553	244	...	...	54	15	216	3	6	15
HANLEY ..	1323	583	1	...	115	45	349	8	40	182
LONGTON ...	737	377	...	...	74	21	245	5	8	7
STOKE ...	632	236	3	...	44	25	282	7	10	25
TUNSTALL ...	591	202	...	...	41	...	299	10	39	...
COUNTY BOROUGH	4690	1993	4	...	398	106	1768	41	151	229

No revaccinations have been performed by the Medical Officer of Health under the Public Health (Small Pox Prevention) Regulations, 1917.

Anthrax.

At the end of the year information was received from the Medical Officer of Health for the City of London relative to the infection of shaving brushes with Anthrax. A certain number of these brushes had found their way to various shops in the County Borough. These were practically all traced, and were either destroyed or returned to the Medical Officer of Health for the City of London, who had undertaken to receive them.

Maternity and Child Welfare.**Midwives' Acts, 1902 and 1918.**

The following is a summary of the work carried out under the Midwives' Acts:—

Eighty-seven midwives notified their intention to practice in the County Borough of Stoke-on-Trent during 1919; 14 of these lived outside the Borough, and most of their work is done in the surrounding districts; 31 of the midwives are trained; this means that 64 per cent. of the midwives practising in the Borough are untrained.

During the year two midwives died; one notified her intention to cease practice; and three did not notify their intention to practice.

Of the 87 midwives 24 per cent. are illiterate; 49 per cent. keep records of the pulse and temperature of their patients during the lying-in period; 4 per cent. keep records of the temperature only; 33 per cent. keep no records of pulse or temperature.

The Lady Medical Officer is the Inspector of Midwives and she is assisted by the Assistant Lady Medical Officer and the Senior Health Visitor, as well as occasionally by the Health Visitors who are appointed as Assistant Inspectors of Midwives.

In addition to 530 routine inspections the following 159 special visits to midwives have been made:—

Enquiries into Still births	..	...	...	44
Late notification of Births	...	...	...	19
Puerperal Fever	...	...	...	30
Ophthalmia	...	...	...	7
Special visits in connection with Medical Aid				
Forms, Still births, Infant Deaths, &c.	...			58
Death of a mother or child	...	...	...	1
				<hr/>
				159

In connection with the Stoke-on-Trent Midwives' Association lectures were given to the midwives of the district on:—

1. Ophthalmia Neonatorum.
2. The Rules of the Central Midwives' Board.
3. Venereal Diseases in Midwifery Work.
4. Infant Ailments.

The Registers are fairly well kept. Several Registers were, on inspection, found not entered up-to-date. Where the midwives cannot write or read the Register is only filled up at intervals by a relative or friend.

On the whole the bags are found clean and tidy, and contain necessary appliances.

All the midwives wear washable dresses, and on the whole are satisfactory in this respect.

During 1919 there have been received from the midwives:—

- 566 Records for calling in Medical Aid;
- 161 Ophthalmia Notifications;
- 14 Notifications of death of new-born children;
- 2 Notifications of death of the mother;
- 166 Still-births on special forms.

During the year a new regulation was passed by the Central Midwives' Board requiring notification to the Local Sanitary Authority by the midwives as to the failure of breast feeding—37 notifications were received from the midwives in the district.

The 566 records of calling for Medical Aid were divided as follows:—

- 267 for abnormality or complication during labour;
- 113 for abnormality or complication during lying-in period;
- 186 for abnormality or complication in the case of the child.

The following table shows the reasons for which a Doctor has been called in by a Midwife during the year 1919:—

Diarrhœa	...	...	...	...	1
Asphyxia	...	...	...	...	1
Kidney trouble	...	...	...	...	2
Contracted pelvis	...	...	...	...	1
Ruptured perineum	...	...	...	...	41
Adherent placenta	...	...	...	...	19
Abnormal presentation	...	...	...	...	73
Tedious labour	...	...	...	...	112
Convulsions	...	...	...	...	21
Prematurity	...	...	...	...	29
Malformation	...	...	...	...	11
Puerperal Fever	...	...	...	...	12
Still-birth	...	...	...	...	6
Ophthalmia	...	...	...	...	85
Ante partum hæmorrhage	...	...	...	...	27
Post partum hæmorrhage	...	...	...	...	4
O.P.P.	...	...	...	...	4
Eclampsia	...	...	...	...	3
Debility	...	...	...	...	46
Erysipelas	...	...	...	...	1
Abortion	...	...	...	...	12
Syphilis	...	...	...	...	3
Neuralgia	...	...	...	...	1
Influenza	...	...	...	...	1
Placenta prævia	...	...	...	...	4
Rigid Os	...	...	...	...	1
Varicose Veins	...	...	...	...	2
Rash	...	...	...	...	2
Vaginal atresia	...	...	...	...	1
Oedema	...	...	...	...	1
Rigid cervix	...	...	...	...	1
Bronchitis	...	...	...	...	4
Pneumonia	...	...	...	...	1
Heart	...	...	...	...	8
Primipara	...	...	...	...	5
Exhaustion	...	...	...	...	7
Jaundice	...	...	...	...	2
Vomiting	...	...	...	...	3
Abdominal Swelling	...	...	...	...	2
Phlebitis	...	...	...	...	1
Flatulence	...	...	...	...	1
Hernia	...	...	...	...	3
Gastric trouble	...	...	...	...	1
Total					566

During 1919 two midwives were reported to the Committee for the following offences:—

One for failing to call in Medical Aid in a case of Ophthalmia and for delay in notifying the same.

One for leaving a patient in advanced labour in a dirty condition.

The midwives were warned by the Town Clerk.

Under the Midwives' Act, 1918, claims were made by Doctors for the payment of fees in 115 cases out of 566 instances in which medical aid was called in. The Local Supervising Authority has recovered the whole of the fees in 16 cases; in 45 cases a portion or the whole of the fee is being collected in instalments by the aid of the Health Visitors and in 54 cases fees have been remitted. The 115 claims amounted to £196.

The total number of deaths of infants under the age of one year was 638, being equal to an infantile mortality rate of 111 per 1,000 births. In 1918 it was 111; in 1917 it was 116; and in 1916 it was 126.

The infantile mortality rate in the 96 great towns was 93; and in England and Wales 89.

Previous to 1917 Stoke-on-Trent was amongst the three or four towns with the highest infantile mortality. In 1918 it was 26th from the top, and in 1919 16th.

During the ten years 1909-1918, the infantile mortality rate for the County Borough averaged 146. During 1919, 1918, and 1917 the rates for the six districts were:—

		1919	1918	1917
Burslem	...	130	101	140
Fenton	...	116	110	118
Hanley	...	105	112	107
Longton	...	128	130	130
Stoke	...	71	86	78
Tunstall	...	112	125	121

Of the 628 infants who died in the County Borough before reaching the age of 12 months:—

146, or 23.2 per cent., died in the first week;
 41, or 6.5 per cent., died in the second week;
 32, or 5.1 per cent., died in the third week; and
 16, or 2.5 per cent., died in the fourth week.

The number of deaths in the first month was 235, or 37.4 per cent. of the total number of deaths.

19.1 per cent. of the infants died between the ages of one and three months; 12.1 per cent. between the ages of three and six months; 16.4 per cent. between the ages of six and nine months; and 15 per cent. between the ages of nine and twelve months.

This year 37.4 per cent. of the infant deaths occurred in children under one month old, compared to 32.6 per cent. in 1918.

It will be seen from the following list the relation of certain diseases to the infantile mortality of the district. Enteritis and Diarrhoea accounted for 27 deaths, Premature Birth 125, Convulsions 35, Bronchitis 78. Tuberculous Diseases 17, Pneumonia 75, Atrophy and Debility 118, Congenital defects 19.

Five deaths were attributed to overlying, as against 5 last year.

TABLE 9.

Infant Mortality occurring in the Borough and Six Districts, 1919.

Causes of Death	Under 1 week	1 to 2 weeks	2 to 3 weeks	3 to 4 weeks	Total under 4 weeks	4 weeks and under 3 months	3 months and under 6 months	6 months and under 9 months	9 months and under 12 months	Burslem	Fenton	Hanley	Longton	Stoke	Tunstall	Total deaths under 1 year
All causes { Certified ... Uncertified ...	139 7	40 1	32	16	227 8	118 2	74 2	101 2	93 1	134 2	72 1	164 4	110 5	50 3	83	613 15
Small-pox
Chicken-pox
Measles
Scarlet Fever
Whooping-Cough
Diphtheria and Croup
Erysipelas
Tuberculous Meningitis
Abdominal Tuberculosis
Other Tuberculosis Diseases
Meningitis (<i>not Tuberculous</i>)
Convulsions
Laryngitis
Bronchitis
Pneumonia (all forms)
Diarrhoea
Enteritis
Gastritis
Syphilis
Rickets
Suffocation (overlying)
Injury at Birth
Atelectasis
Congenital Malformations...
Premature Birth
Atrophy, Debility and Marasmus
Other causes
Totals ...	146	41	32	16	235	120	76	103	94	136	73	168	115	53	83	628

Net Births in the year—Legitimate, 5313: Illegitimate, 322.

Net Deaths in the year—Legitimate, 579: Illegitimate, 49.

Deaths under one year per 1,000 Births in the Borough.

Year	Total Births	From all causes	From Diarrhoea	From all causes excluding Diarrhoea	From Respiratory Diseases	From Debility, Congenital Defects and Premature Births	From Measles	From Whooping Cough
1917	4991	116	5.8	110.2	27.0	48.6	1.2	6.0
1918	5219	111	6.9	104.1	26.0	41.9	4.2	1.5
1919	5635	111	4.7	106.6	27.1	46.4	0.1	5.6

Average rate for the ten years (1910—19) ... 140

Highest rate for the ten years (1911) ... 203

Lowest rate for the ten years (1918 and 1919) 111

The infantile mortality rate in Stoke-on-Trent for the first quarter was 232.

” ” ” second quarter was 129.

” ” ” third quarter was 73.

” ” ” fourth quarter was 69.

The infantile mortality rate in the 96 great towns in 1910 was 115; in 1911 it was 140; in 1912 it was 101; in 1913 it was 117; in 1914 it was 114; in 1915 it was 117; in 1916 it was 99; in 1917 it was 104; in 1918 it was 106; and in 1919 it was 93.

Method of feeding in 550 deaths that have been inquired into:

District	MOTHER NOT WORKING			MOTHER WORKING		
	Breast Fed	Artificially Fed	Mixed	Breast Fed	Artificially Fed	Mixed
Hanley	97	25	10	11	8	1
Burslem	52	23	4	20	14	8
Tunstall	41	10	1	4	8	3
Longton	44	26	1	21	9	0
Fenton	21	20	3	7	13	2
Stoke	14	15	2	5	7	0
County Borough ...	269	119	21	68	59	14

Notification of Births Act.

Of the 6,159 births notified in the County Borough of Stoke-on-Trent during 1919, 4,909 were attended by midwives, or 79.7 per cent.

Births notified (including 276 Still-births):—

	Total	Doctors in attendance	Midwives in attendance	Public Institutions
Hanley	1737	271	1466	...
Burslem	1154	224	930	...
Longton	972	211	761	...
Stoke	816	105	674	37
Tunstall	813	158	648	7
Fenton	667	237	430	...
Stoke-on-Trent	6159	1206	4909	44

All cases attended by midwives are visited about the 4th or 5th day.

Table showing the Feeding of 5467 Babies born in 1918.

District	Total	Breast Fed	Mixed	Artificially Fed	Working Mothers	House- wives
Hanley ..	1598	1270	194	134	377	1221
Burslem ...	1003	691	223	89	240	763
Tunstall ...	725	526	157	42	169	536
Fenton ...	613	385	159	69	168	445
Longton ...	816	497	205	114	258	578
Stoke ...	712	518	161	33	122	590
Whole Boro'	5467	3887	1099	481	1334	4133

There were 276 Still-births notified during 1919.

		Attended by		Public	
		Doctors	Midwives	Institutions	
Burslem	...	10	34	...	—
Fenton	...	19	11	...	—
Hanley	...	21	62	...	—
Longton	...	19	31	...	—
Stoke ...	...	10	24	...	2
Tunstall	...	13	19	...	1
Total		92	181	3	

Enquiries were made into 164 still-births attended by the Midwives of the Borough. They were classified as follows:—

Primipara	...	...	...	65
Multipara	...	...	...	99

PRIMIPARA.

Normal presentations	...	...	43
Abnormal	...	...	17
Unascertained	...	...	5

MULTIPARA.

Normal presentations	...	...	61
Abnormal	...	...	25
Unascertained	...	...	13

PRIMIPARA.

Mothers working	...	...	23
Mothers at home	...	...	42

MULTIPARA.

Mothers working	...	...	76
Mothers at home	...	...	23

In 42 cases (30 Multipara and 12 Primipara) the still-birth was attributable to a fall or shock.

The Lady Medical Officer states that from the enquiries made there is no evidence that delay on the part of the midwife, in sending for medical help has in any way contributed to the occurrence of still-births, and suggests that arrangements should be made in the near future whereby pathological examinations might be made.

Summary of visits paid by the Medical Officers and Health Visitors:—

Infants under one year—First	...	...	5,498
Revisits	...	...	11,387
Revisits to children over one year of age	...	...	15,658
Visits to cases of Ophthalmia	...	...	842
Still-births and Deaths Enquiries	...	...	1,184
Midwives' visits	...	...	530
Phthisis visits	...	...	1,000
Measles visits	...	...	1,175
Wasted visits, out, removed, etc.	...	...	2,172
Special visits	...	...	3,381

42,827

Illegitimate Children.

Of the total births 322, i.e., 5.7 per cent. were illegitimate.

Infantile Mortality rates amongst Illegitimate and Legitimate Children in the County Borough of Stoke-on-Trent.

	Illegitimate	Legitimate	Whole
1911	306	197	203
1912	215	123	128
1913	232	166	169
1914	283	138	144
1915	167	146	147
1916	152	125	126
1917	144	114	166
1918	144	109	111
1919	151	109	111

All illegitimate children in the Borough are visited monthly and it is encouraging to report that a very considerable percentage of these infants have attended at an Infant Welfare Centre. Free milk has been allowed to many of them. "The illegitimate babies who are put out to nurse are very frequently cared for by relations of the mother. The continual supervision of the houses where these infants are kept has had a good result on their general condition."

The Council have authorised the Medical Officer of Health to assist any unmarried mother who may be discharged from an institution and who is without lodging or accommodation. No case has arisen in which it was necessary to take any action.

Arrangements have been made whereby when mothers and infants are discharged from the Guardians Institutions, information is sent to the Medical Officer of Health.

There are five Child Welfare Centres in the County Borough provided by the Council and two Centres under Voluntary Committees. These latter work in conjunction with the Corporation Centres and are assisted by the Corporation. Three of the Centres are situated in Hanley, and one each in Tunstall, Burslem, Fenton and Longton. It is proposed to provide one in Stoke at an early date. Two Lady Medical Officers and 12 Health Visitors are employed by the Corporation and three Health Visitors by the Voluntary Societies.

The number of children on the registers of the Centres at the end of the year was as follows:—

Tunstall	...	...	...	1,047
Burslem	...	...	...	2,096
Shelton	...	...	...	1,466
Etruria	...	...	...	712
Hanley	...	...	...	963
Fenton	...	...	...	508
Longton	...	...	...	1,905
Total	...	...	...	8,697

The average number of attendances at each Infant Consultation:

Tunstall	...	...	...	80 to 100
Burslem	...	...	...	150 to 200
Shelton	...	...	...	80 to 100
Etruria	...	...	...	40 to 50
Hanley	...	...	...	90 to 100
Fenton	...	...	...	40 to 55
Longton	...	...	...	150 to 170

At Burslem and Longton the Centres are open for the whole of one day each and two Medical Officers are in attendance.

The total number of attendances at the Infant Welfare Centres was as follows:—

Attendances	...	...	...	28,550
Consultations	...	...	...	21,872

During the year the names of 3,266 babies have been entered on the registers of the Welcomes as attending for the first time.

1,943 were under one year;

1,323 over one year of age.

Ages of Children at Date of Entry to Welcomes.

Under 1 mth.	1-2 mths.	2-3 mths.	3-4 mths.	4-5 mths.
142	624	346	187	144
5-6 mths.	6-9 mths.	9-12 mths.	12 mths.-2 yrs.	
73	217	210	407	
	2-3 years	3-4 years	4-5 years	
	393	277	246	

Dr. Balsillie, the Lady Medical Officer states that "During the year the number of breast fed infants has increased. The results of breast feeding, however, are not always as satisfactory as one might hope."

"A considerable number of the women who attended at the Welcomes and who were breast feeding their children were noticeably pale, anæmic and poorly nourished. In several of these cases treatment was given to the mother with very beneficial effects."

"While no definite statement can be made, an impression is formed in one's mind that certain kinds of factory life before marriage are not conducive towards a good state of health in the mother. They do not fit her for the production and rearing of healthy infants."

"A great number of the babies are now being weaned at a much earlier period than was formally insisted on, and after six months it is often advised that the breast milk be supplemented with some other food. Dried milk has been used in the majority of these cases with very excellent results."

"A considerable number of the children over one year who have been brought to the Centres have been suffering from prolonged lactation; many cases of anæmia and rickets have been caused by this. It has been repeatedly found that children of one year and even eighteen months are still being breast fed, in addition to having some other kind of food. It has been exceedingly difficult to convince the women of the harm they are doing."

During the year Dried Milk has been largely used, and with very good results. It is supplied at all the Infant Welfare Centres free of cost in special cases, but in others at either reduced rate or at cost.

For the year ending March 31st, 1920, £3,800 worth of milk was used, £2,508 worth was sold and the rest given free.

Feeding of 766 artificially fed infants under one year of age at the time of their first attendance at the Infant Clinics.

Dried Milk preparations	...	...	...	...	226
Patent foods	...	...	...	...	40
Cow's milk and water	...	...	...	...	157
Cow's milk and barley water	...	...	...	...	49
Patent food and cow's milk	...	...	...	...	6
Condensed milk	...	...	...	...	73
Patent food and condensed milk	...	...	...	...	18
Breast and cow's milk	...	...	...	...	60
Breast and condensed milk	...	...	...	...	28
Breast and Dried Milk preparations	...	...	...	...	64
Breast and patent food	...	...	...	...	27
Breast and boiled bread and water (pobs)	...	...	...	...	10
Condensed milk and boiled bread and water (pobs)	...	...	...	...	1
Dried Milk preparations and condensed milk	...	...	...	...	1
Condensed milk and cow's milk	...	...	...	...	2
Sterilized milk	...	...	...	...	4
Total					766

"The feeding of the older children still leaves great room for improvement. Their diet consists largely of bread, there is not enough variety, and although many inexpensive articles of food are available, the mothers do not realize the importance of a mixed diet. Porridge, which is so valuable, is not given with the frequency that one would like. The mother often says that the child will not take it; very often this disinclination on the part of the child is due to the fact that there are no regular meal times in the home, and instead of the child having proper breakfasts and dinners, 'pièces' (bread and jam or cake), will be given, with the result that a normal healthy appetite is never cultivated."

CLOTHING.

"A large number of model garments have been made during the year and have been bought as rapidly as they have been made. Work of very considerable value has been done in this direction.

Model sets of first baby clothing are now in use and these have been very largely taken advantage of. The cost of wool and flannel has increased very materially, and these garments, sold at a reasonable cost, have been an inestimable boon to the mothers."

GENERAL CONDITIONS.

"During the year one regrets to record that home conditions generally have not improved. The lack of restraint and effort which has characterised so seriously the national life of the people since the termination of the War has made itself felt in the lives and homes of the working classes. Unfortunately, many of the women have not shown that desire to improve their homes, and that interest in their children which would be one of the most hopeful signs of Maternity and Infant Welfare work."

"One has the impression also that the houses have not been kept as clean as they might have been. The price of soap has certainly materially increased, but that cannot be taken as the reason why the general dirt and untidiness are so much greater in many houses to-day."

"One has considerable sympathy with the women who go out and leave their homes in search of recreation and enjoyment because unfortunately the majority of the working class houses in the Potteries are not conducive to happy and contented home life."

"This side of the work can, of course, only be dealt with by the influences of patient, persistent and tactful health visiting, in addition to the improvement of the conditions the working class mother lives under."

"1,296 mothers of children born during the year had worked in the Pottery Factories previous to marriage."

INFANT AILMENTS.

"During the year large numbers of infants were treated at the different Centres for minor ailments. This treatment has had extraordinarily beneficial results and it is felt that many cases of serious illness which might have resulted in death have been averted."

"The mothers have very largely availed themselves of the treatment at the Infant Clinics."

"Very great benefit has resulted from the early treatment of bronchial catarrh in many cases. The condition is a frequent one in this district, but if a little care be exercised just at the beginning, very often an acute bronchitis is averted."

"Gamgee jackets have been supplied to the mothers free of cost, and when the children who have attended at the Welcomes have been taken ill, gamgee jackets have been taken to them by the Health Visitors, and the general sick nursing arrangements in the home supervised."

Table showing Infant Ailments treated at the Welcomes during the year:—

Bronchial Catarrh	...	...	...	1,838
Debility after pneumonia and whooping cough				34
Pulmonary Tuberculosis	...	...	...	17
Nasal Catarrh	...	...	...	13
Diarrhœa	...	...	...	462
Gastric Catarrh	...	...	...	291
Excessive vomiting	...	...	...	97
Thrush and stomatitis	...	...	...	34
Anæmia and debility	...	...	...	190
Marasmus and malnutrition		...	...	64
Constipation	...	...	...	54
Rickets	...	...	...	99
Dentition	...	...	...	108
Ophthalmia neonatorum	...	...	...	3
Purulent conjunctivitis	...	...	...	31
Catarrhal conjunctivitis	...	...	...	38
Blepharitis	...	...	...	14
Discharging ears	...	...	...	43
Impetigo contagiosa	...	...	...	94
Seborrhœa (scalp)	...	...	...	61
Ringworm	...	...	...	15
Urticaria	...	...	...	18
Septic rashes	...	...	...	24
Eczema	...	...	...	103
Inflamed buttocks	...	...	...	81
Congenital syphilis	...	...	...	14
Enlarged curvical glands	...	...	...	13
Umbilical hernia	...	...	...	116
Septic umbilicus	...	...	...	7
Abcesses and septic wounds		...	...	8
Thyroid deficiency	...	...	...	2
Balanitis	...	...	...	7
Thread worms	...	...	...	8
Prolapsus ani	...	...	...	4
Nocturnal incontinence	...	...	...	3
Epilepsy	...	...	...	1
Jaundice	...	...	...	1
Congenital heart	...	...	...	3
Minor accidents	...	...	...	9
Total				3,922

HOME HELPS.

“The Council has sanctioned the employment of home helps. There are four women on the list for employment as home helps, they have been selected by the Lady Medical Officer from mothers attending at the centres. These home helps are sent to confinement cases where the mother is not being properly cared for. Home helps have been supplied free in 4 cases.”

“This scheme should be considerably developed in the near future.”

The following are two typical cases where home helps were supplied:—

- (a) Eight children; woman very delicate, attended Ante-natal Clinic during pregnancy; bad heart disease, no one in the house to look after her; income of family, £2 11s. od. In this case home help was supplied for five days.
- (b) Woman notified pulmonary tuberculosis; 5 children, youngest child of two years ill in the house with bronchial pneumonia; income of family, £2 12s. od. Home help supplied for six days.

ANTE-NATAL CLINIC.

“The work in connection with the Ante-Natal Clinic has steadily increased. During the year 144 women registered themselves. A large number of these cases have been sent to the Clinic by the midwives of the district. The women who have registered themselves have all attended regularly, practically up to within a week or two of their confinement.”

“Good results have followed in every case. The woman’s general health has improved, and the children were almost without exception, full-time and healthy.”

“Many of the women were very poorly nourished when they first attended at the Clinic, and those mothers who were unable to get sufficient nourishment at home were given free dinners. During the year 1,755 free dinners, at a cost of ninepence to one shilling each, were supplied to the mothers who attended the Ante-Natal Clinic. The women evidently have never been accustomed to having a good dinner every day, and the improvement has been most noticeable. There can be no doubt that the money spent on the provision of these dinners has had very good results.”

“On their first attendance at the Clinic many of the women were suffering from minor ailments. Insured patients and patients who could afford to pay their own doctor were of course referred to their own private practitioner for treatment; the other cases were treated at the Clinic. A list is subjoined of the principal conditions found on examination.”

Constipation	...	...	...	41
Dyspepsia	...	...	...	39
Bronchial catarrh	...	...	...	19
Varicose veins	...	...	...	32
Cardiac disease	...	...	...	3
Anæmia	...	...	...	33
Abnormal breast conditions	...	...	...	10
Uterine prolapse	...	...	...	6
Albuminuria	...	...	...	5
Eczema	...	...	...	2
Neurasthenia	...	...	...	1
Hæmorrhoids	...	...	...	1
Epistaxis	...	...	...	1
Gluteal abscess	...	...	...	1

Three cases of pulmonary tuberculosis were referred to the Dispensary.

"In connection with the Ante-Natal Clinic, six maternity bags have been provided. These contain a complete outfit for confinement cases, and also sufficient clothing for the infant till it is a month old. These bags have been in constant use, and many distressing cases where there were even no sheets for the bed have been relieved. The midwives in the district may obtain these bags for the use and comfort of any poor patient they may have. In only one case has the bag been returned with any article missing."

LADIES' VOLUNTARY COMMITTEES.

"The Ladies' Voluntary Committees at Burslem and Longton, under the presidency of Mrs. Henry Wood, Burslem, and Mrs. Dawes, Longton, have continued their valuable assistance. The Committees have distributed the Dried Milk and Virol and have provided tea each week for the mothers."

"In connection with the Burslem and Tunstall Infant Welfare Centres, Mrs. Wood has provided five perambulators, which are lent out to any mother who has several young children. Very often the mother has been unable to attend an Infant Welfare Centre because she has had an infant in arms and another one who has been unable to walk. These perambulators have proved to be a great help and are much valued."

"The work done by the ladies in connection with the Clothing Club must also be mentioned, and these garments provided by the voluntary workers have been highly appreciated."

"The type of mother most influenced in child welfare work is the young mother with her first baby, and it has been most cheering during the year to see the effect on these mothers of the Health Visitor's influence and the work done at the Infant Clinics."

"In infant welfare work as time goes on, one becomes keenly conscious of the tremendous possibilities which underly it. It almost seems that mothercraft is the foundation stone on which the whole edifice of social welfare must be reared."

"One feels strongly that most determined efforts must be made to improve the management of home life and that it can best be done by women realising and undertaking cheerfully the great possibilities and responsibilities which are entrusted to them."

"The important question will soon have to be discussed as to how far it is possible and advisable for women to work in occupations which do not provide them either with the inclination or the fitness for domestic life."

Puerperal Fever.

There were 16 cases of Puerperal Fever notified during 1919, six of which proved fatal.

		Doctor in attendance.	Midwife in attendance.	Doctor and Midwife in attendance.	Total.
Burslem	...	—	3	3	6
Hanley	...	—	1	2	3
Longton	...	—	2	1	3
Stoke	...	—	—	1	1
Tunstall	...	—	—	2	2
Fenton	...	—	—	1	1
		—	—	—	—
		—	6	10	16

In the 16 cases is included one which occurred outside the area. It was removed to a Hospital in the Borough, and was notified from there.

There is no hospital accommodation for the treatment of Puerperal Fever other than the Guardians' Institutions. The question of making such provision is under consideration.

Deaths assigned to Pregnancy or Child Birth.

		Puerperal Fever.	Other Diseases.	Total.	Rate per 1,000 Births.
1919	...	6	16	22	3.9

The rate per 1,000 births in England and Wales was, in 1919, 3.9.

All cases of Puerperal Fever are very carefully enquired into, and precautions taken in the way of disinfecting the midwife and controlling her practice in order to prevent the spread of the disease.

Ophthalmia Neonatorum.

The total number of cases notified by medical men and midwives in 1919 was 325, as compared with 191 in 1918. In 148 instances the diagnosis was not confirmed by a medical man, though notifications were received from midwives.

Ophthalmia Neonatorum has been compulsorily notifiable throughout the whole area since 1911, 177 notifications were received during 1919 from medical men either as first notifications or confirming midwives' notifications. The total number of notifications received from midwives was 277. The 325 cases notified were distributed as follows:—

Burslem	...	...	...	87 cases
Fenton	...	...	...	36 „
Hanley	...	...	...	123 „
Longton	...	...	...	37 „
Stoke	...	...	...	18 „
Tunstall	...	...	...	24 „

Number of cases notified	...	...	...	325
Number of births registered	...	...	...	5,635
Number of cases per 1,000 births	...	...	...	57.6

In 1918 the number of cases per 1,000 births was 36.6

In 1917 " " " " 45.6

In 1916 " " " " 38.2

In 1915 " " " " 38.0

In 1914 " " " " 40.7

In 1913 " " " " 20.2

In 1912 " " " " 32.9

The ages of the infants on the onset of the disease ranged from one to eighteen days, the vast majority occurring between the ages of one and eight days as usual.

In 54 of the cases the birth was attended by a doctor.

In 1271 cases the birth was attended by a midwife.

Nurses were supplied by the Corporation in 171 cases.

The cost of nursing was £508 5s. od.

In all cases other than the following, the disease was cured without injury to the eyes:—

(1) Vision in right eye lost.

Impaired in left eye—uncertain if any sight will be retained—still under treatment at N.S. Infirmary.

(2) Vision in right eye lost.

Impaired in left eye. To be operated on later.

(3) Vision lost in left eye.

Vision normal in right eye. Still attending N.S. Infirmary.

No hospital accommodation exists for the treatment of Ophthalmia Neonatorum. This is a very urgent matter, as at times it has been found very difficult indeed to have the cases properly nursed and attended to in the homes.

Day and night nurses are supplied in all cases where necessary, and arrangements also made for specialists, who consult with the medical attendant free of charge.

Measles.

Number of cases notified during the year was 1,515, of which 10 were notified as German Measles.

There were 20 deaths, compared to 150 in 1918, and 47 in 1917.

The death rate from Measles in 1919 was 0.08 per 1,000, compared to 0.13 for the 96 great towns.

The ages of death were as follows:—

Under 1	1—2	2—5	5—15	15—25
1	11	6	2	—

Districts	Burslem		Fenton		Hanley		Longton		Stoke		Tunstall		County Borough	
Year	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
1917	325	5	461	9	301	4	655	25	491	4	102	0	2335	47
1918	1032	51	306	14	585	25	138	3	371	5	901	52	3333	150
1919	221	1	230	1	357	10	510	5	193	3	4	0	1515	20

An Order for the withdrawal of the compulsory notification of Measles and German Measles was made in December, to take effect from January 1st, 1920.

In dealing with this disease, action has been taken by the distribution of leaflets through the schools, and by the Health Visitors, and by the exclusion of children from school in accordance with the Memorandum of the Board of Education and the Ministry of Health. Infants' Departments of schools were closed in 14 instances when the attendance fell to 70 per cent., either on the direct action of the School Medical Officer or the Medical Officer of Health. At certain periods all children under five years of age were excluded from school, either in particular districts or throughout the whole County Borough. The Health Visitors have paid a large number of visits to the affected houses.

The Joint Hospital Board has been requested and has consented to provide a limited number of beds for cases in which hospital accommodation is required. The Hospital, however, was very fully occupied in dealing with an epidemic of Scarlet Fever, and no cases of Measles were removed.

No nurses were supplied during the year.

Whooping Cough.

There were 105 deaths from Whooping Cough during the year, compared with 36 in 1918, and 87 in 1917.

The deaths occurred at the following ages:—

Under 1	1—2	2—5	5—15
32	31	38	4

This is one of the diseases in connection with which practically no preventive or curative measures are taken by the Authority.

Leaflets are distributed through the schools.

Acute Anterior Poliomyelitis.

During the year three cases of Acute Anterior Poliomyelitis were notified. None of the cases proved fatal. All the cases are improving under treatment. Two of these cases are under treatment at the North Staffordshire Cripples' Aid Society, and one at the North Staffs. Infirmary. The returns from the North Staffordshire Cripples' Aid Institution would appear to indicate that a considerable number of cases of Acute Anterior Poliomyelitis occur in the Borough, but for one reason or another are not brought to the attention of the Local Authority.

Epidemic Diarrhœa.

During the year 27 deaths occurred from Epidemic Diarrhœa under one year of age; and 12 from 1-2 years of age.

Epidemic Diarrhœa was not markedly present at any time during the year. This is similar to the two previous years. Every effort is made to keep the public informed by the distribution freely of leaflets as the summer approaches, special efforts are also made to see that the districts are well cleansed at these times. Mothers are encouraged to attend the Infant Welfare Centres, and to seek other advice on the first indication of any outbreak of Diarrhœa.

Crippled Children.

By arrangement with the North Staffordshire Cripples' Aid Society, the Corporation have made certain provision for the treatment of crippled children in their Institution, and at their Out-Patients' Department, and after-care at home for crippled children of all kinds under 5 years of age. During the year ending March 31st, 1920, the following numbers of crippled children were under treatment from the County Borough of Stoke-on-Trent:—179 cripples under 5 years of age; 388 from 5 to 16 years; and 98 over 16 years: total 665. Of this number, 184 were cases of rickets; 168 were cases of Poliomyelitis; and 313 were congenital and other cases.

Isolation Hospitals.

There are now two Isolation Hospitals for the treatment of cases of Infectious Diseases occurring in the Borough, viz.:—The Bucknall Isolation Hospital and the Bagnall Small-Pox Hospital.

At Bucknall: Scarlet Fever, Diphtheria, and Enteric Fever cases are admitted, it is situated in the Stoke-upon-Trent Rural District, it is under a Joint Board the constituent Authority on which are the County Borough of Stoke-on-Trent and the Rural District of Stoke-upon-Trent.

For the year ending March 31st, 1920, the contribution of the County Borough of Stoke-on-Trent to the Joint Hospital amounted to £18,197 11s. od.

During the year 1919, the following patients from the County Borough were treated in the wards of the Bucknall Hospital:—

Scarlet Fever	...	...	...	660
Diphtheria	...	...	...	388
Enteric Fever	...	...	...	8
Cerebro Spinal Meningitis	...	...	...	5
Measles	...	...	...	—
Erysipelas	...	...	...	1
Malaria	...	...	...	3

The Hospital is built to accommodate 144 beds, with 2,000 cubic feet per bed. A larger number of beds has, however, been placed in the Hospital, so that there are now 264 beds. The question of extending this Hospital should be taken into consideration, not only on account of the fact that it is overcrowded with beds, but because there is the necessity of providing accommodation for a larger number of diseases than was formerly contemplated. The accommodation is freely used.

Motor ambulances are provided for the removal of cases.

The Medical Superintendent in his report states that for the year ending 31st March, 1920, 1,454 cases were admitted to Hospital. There were 14 return cases, or 1.2 per cent.

One hundred and forty-eight cases were admitted into Hospital suffering from both Scarlet Fever and Diphtheria. In 39 instances the patients admitted suffering from Scarlet Fever contracted a second disease whilst in the Hospital, and 18 cases of Diphtheria whilst in the Hospital also contracted a second disease.

Cases both of Scarlet Fever and Diphtheria when admitted were found to be suffering from other diseases, such as Chicken-Pox, Whooping Cough, Measles, Ringworms, Scabies, and Quinzies.

The following is a list of cases admitted during the year ending March 31st, 1920:—

Scarlet Fever	...	...	...	999
Diphtheria	...	...	...	412
Enteric Fever	...	...	...	12
Cerebro Spinal Meningitis	...	...	...	7
Acute Rheumatism	...	...	...	2
Malaria	...	...	...	4
German Measles	...	...	...	1
Measles	...	...	...	3
Erysipelas	...	...	...	9
Celulitis	...	...	...	1
Stomatitis	...	...	...	2
Embolism of Pulmonary Artery	...	...	...	1
Peritonitis	...	...	...	1

Bagnall Hospital is administered by the North Staffordshire Joint Small-Pox Hospital Board, and was built in 1903-4, to accommodate 54 patients. This Hospital at the present time serves the whole of the County of Staffordshire.

The amount of the contribution of the County Borough to the Joint Board during the year ending 31st March, 1920, was £522 12s. 5d.

Hospitals, etc.

Institutions within the district receiving sick and infirm persons from outside the district:—

- North Stafford Infirmary.
- Stoke Union Workhouse.
- Burslem and Wolstanton Union Workhouse.
- Haywood Hospital.
- Stanfield Sanatorium for Tuberculosis.
- Longton Cottage Hospital.
- North Staffordshire Cripples' Aid Society, Hartshill.

Institutions outside the district receiving sick and infirm persons from the district:—

- Stoke and Stoke Rural Joint Hospital, Bucknall.
- North Stafford Joint Small-pox Hospital, Bagnall.
- County Lunatic Asylum, Cheddleton.

Adoptive Acts in force in the Borough.

Infectious Diseases Prevention Act, 1890.

The Public Health Acts Amendment Act, 1890.

The Housing of the Working Classes Act, 1890. (Part 3).

Parts of the Public Health Acts Amendment Act, 1907, as follows:—

Part 2.—Sections 15, 16, 17, 18, 20, 21.

Part 3.—Sections 22, 23, 24, 26, 27, 28.

Part 4.—Sections 29, 31, 32, 33.

Part 5.

Part 7.—79, 80, 81, 85, 86.

Part 8.

Part 9.

Part 10.

Sanitary Administration.

The Inspectional Staff which was very much depleted during the War, has now been re-organised and a sufficient number of officers appointed to undertake all sections of the work.

The Factories and Bakehouses inspection is now carried out by Mr. Hulme; the Workshops by Mr. Addison; and the Smoke Inspections by Mr. Nicklin, the Deputy Chief Inspector.

The following table shows the number of defects found in connection with the sanitary accommodation of Factories:—

SANITARY ACCOMMODATION			1918			1919		
			Defects found	Defects remedied	Out- standing at end of year	Defects found	Defects remedied	Out- standing at end of year
SANITARY CONVENIENCES	Insufficient ... ..	...	4	4	...	36	36	...
	Unsuitable ... ..	...	1	1	...	1	1	...
	Defective ... ..	...	16	16	...	3	3	...
	Not separate for sexes		4	4	...	3	3	...
	Badly lighted ... ..	...	2	2	...	3	3	..
	Badly ventilated ...	...	1	1	...	...	...	...
	Without proper fasten- ers on doors ... ..	...	18	17	1	14	15	...
	Dirty condition ..	...	109	109	...	27	27	...
	Foul or defective urinals	...	...	...	...	...	...	...
	Other nuisances ...	...	18	18	...	19	19	...
	Fittings ... ..	...	20	20	...	17	17	...
Total ..			193	192	1	123	124	...

TABLE OF WORK DONE IN REMEDYING DEFECTS
FOUND IN FACTORIES:—

	1918	1919
Privies abolished entirely	—	3
New water-closets provided	5	36
New automatic flush water-closets provided	—	—
New closets provided (additional accommodation)	5	36
Fasteners fixed on doors of conveniences used by females	15	15
Closets screened or approaches separated	6	1
Separate doors and partitions provided	1	3
Foul closets cleansed	109	—
Closets provided with flushing cisterns	—	13
Foul urinals cleansed or abolished	2	—
Additional light or ventilation provided	—	3
Closet fittings repaired	6	17
Other defects remedied	5	19

Workshops.

During the year 2,057 inspections have been made of Workshops and Bakehouses.

Sanitary Defects found in Workshops.

Defects	1918			1919		
	Defects found	Defects remedied	Defects Outstanding at end of year	Defects found	Defects remedied	Defects Outstanding at end of year
Want of Cleanliness	220	218	11	197	199	9
Want of Ventilation	10	9	2	4	5	1
Overcrowding	—	—	—	3	3	—
Drainage of Floors	1	1	—	3	3	—
Other Nuisances	17	18	3	30	29	4
SANITARY CONVENIENCES :						
Insufficient	4	5	1	13	14	—
Unsuitable	2	2	1	5	6	—
Defective	29	32	—	17	16	1
Not separate for sexes	3	3	2	3	5	—
Badly lighted	—	—	—	2	2	—
Badly ventilated	—	—	—	5	5	—
No fasteners on doors of Female W.C's.	—	—	—	—	—	—
Dirty condition	48	46	4	18	20	2
Fittings	16	18	2	19	21	—
Intervening spaces provided	1	1	—	1	1	—
Total	358	359	27	320	329	17

Bakehouses.

There are now on the register 94 Bakehouses, as compared with 111 in the previous year. During the year 604 visits were paid, as compared with 307 in 1918. The number of notices served was 6.

Table of Breaches of Special Sanitary Requirements for Bakehouses, Sections 97—100 Factory and Workshops Act, 1901.

Section of Act	Contravention	Found	Remedied
Sec. 97	Drain having opening within Bakehouse	...	...
98	Bakehouse unfit on Sanitary Grounds ..	...	...
99	Bakehouse requiring limewashing	122	122
	Total	122	122

Outworkers.

The total number of lists received has been 166, as compared with 164 in the previous year.

	1918	1919
Lists of Outworkers received	164	166
Number of names on lists	316	325
Warning Notices sent <i>re</i> Lists... ..	131	185
No. of visits paid to Outworkers during the year ...	...	135

1.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR INSPECTORS OF NUISANCES.

Premises	Number of		
	Inspections	Written Notices	Prosecutions
Factories (including Factory Laundries) ...	205	12	—
Workshops (including Workshop Laundries	1453	61	—
Workplaces (other than Outworkers' premises included in Part 3 or this Report)	—	—	—
Total	1658	73	—

2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

Particulars	Number of Defects		
	Found	Remedied	
<i>Nuisances under the Public Health Acts :—</i>			
Want of Cleanliness	234	236	
Want of Ventilation	4	5	
Overcrowding	3	3	
Want of Drainage of Floors... ..	3	3	
Other Nuisances	49	48	
Sanitary accommodation {	insufficient	49	50
	unsuitable or defective	23	23
	not separate for sexes	6	8
<i>Offences under the Factory and Workshop Acts :</i>			
Breach of special sanitary requirements for Bakehouses (s.s. 97 to 100)	122	122	
Total	493	498	

3.—HOME WORK.

NATURE OF WORK	OUTWORKERS' LIST.			Notices served on Occupiers as to keeping or sending Lists	OUTWORK IN UNWHOLESOME PREMISES (Section 108)	
	List received from Employers sending twice in the year				Instances (11)	Notices Served (12)
	Lists	Con-tractors	Workmen			
Wearing Apparel— Making, &c. ...	165	165	323	184	—	—
Furniture and Up- holstry ...	—	—	—	—	—	—
Umbrellas ...	—	—	—	—	—	—
Basket Making ...	1	1	2	1	—	—
Total ...	166	166	325	185	—	—

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year							Number
Dressmaking and Millinery	...	...	...	...	...	...	332
Bootmaking and Repairing	...	...	...	...	...	...	220
Blacksmiths and Wheelwrights	...	...	...	...	...	...	42
Tailoring	...	...	...	...	...	...	100
Baking	...	...	...	...	...	...	94
Cratemaking	...	...	...	...	...	...	31
Engraving	...	...	...	...	...	...	18
Joiners	...	...	...	...	...	...	42
Plumbers	...	...	...	...	...	...	50
Others	...	...	...	...	...	...	300
Total number of workshops on Register							1229

5.—OTHER MATTERS.

Class							Number
Matters notified to H.M. Inspector of Factories :—							
Failure to affix Abstract of the Factory and Workshops Act (s. 133, 1901)							1
Action taken in matter referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshops Act (s 5. 1901).							100
							—
							—
Other							—
Underground Bakehouses (s. 101) :—							
In use at end of the year							1

Motor Disinfecting Van.

The total mileage recorded during the year was 4,210½ miles; with a consumption of 455½ gallons of petrol and 2,770½ with 307 gallons of Benzol, which is equal to 9.2 miles per gallon of Petrol and 9.05 miles per gallon of Benzol. The full total of miles run was 6,981, with a consumption of 762½ gallons of spirit.

The average number of miles run per week (28½ weeks) was 155.5 miles, with an average consumption of 15.9 gallons of Petrol, and the average (for 18½ weeks) was 149.7 miles, with 16.5 gallons of Benzol.

The highest mileage in one week with Petrol was 185 miles, Petrol used—22 gallons, and the highest run with Benzol was 205 miles—26 gallons being consumed.

Horse hire was necessary for one day and motor hire for 16 days owing to the motor being held up for minor repairs.

Housing.

NUMBER OF HOUSES.

There are close upon 50,000 houses in the County Borough. Of this number probably about 95 per cent. are below a rental of £26 per annum. About 62 per cent. of the houses consist of four rooms or less. No new houses were built during the year.

POPULATION.

The population of the area is estimated to be 249,296.

EXTENT OF SHORTAGE OF HOUSES.

There are no empty houses in the area, and it is estimated that to meet the unsatisfied demand for houses 5,000 new houses are required. Extensive Housing Schemes are in preparation, and it is contemplated that a large number of houses will be ready before the end of 1920. All these schemes are being carried out in close co-operation with the Housing Department of the Ministry of Health.

OVERCROWDING.

At the Census of 1911, there were 2,136 houses with more than two occupants per room, and it has been recently estimated that of the houses intended for one family, over 14 per cent. were occupied by two or more families. The cause of overcrowding is insufficient supply of houses, and the fact that none have been built for several years. It has been impossible to deal with overcrowding to any extent during the year on account of the shortage of houses.

STANDARD OF HOUSING IN THE DISTRICT.

At the Housing Survey taken in October, it was calculated that there are included in unhealthy areas in the Borough between 4,000 and 5,000 houses, that there were in other parts of the district upwards of 350 houses unfit for habitation, and upwards of 1,600 houses were below a reasonable standard. There are a large number of sanitary defects in the older houses.

GENERAL CHARACTER OF DEFECTS IN UNFIT HOUSES.

Defective brickwork, low roofs, defective eaves and downspouts, dampness, defective floors and plaster, fixed windows, badly lighted and ventilated rooms. In the majority of houses there is either no food-store, or it is totally unfit for the purpose, being damp, dark, and badly ventilated. Coal is commonly stored in the pantry or living room or scullery, in the absence of proper provision. The want of sinks and wash-boilers is very evident. In many cases the wash-boilers are used in common. A large number of the closets also are used in common, and the yards as a rule are either unpaved or very badly paved and insanitary.

In the case of sanitary defects, these are being dealt with under the Public Health Acts as nuisances.

UNHEALTHY AREAS.

No representations were made to the Authority before the beginning of the year 1919. Certain representations have been made since the beginning of 1920.

Housing, Town Planning, etc., Act, 1909,

(Owing to the shortage of staff no work under the above Act has been carried out during the year.

Statement required by Article V, of the Housing (Inspection of District) Regulations, 1910, in regard to Inspection of Dwelling Houses under Section 17 (1) of the Housing, Town Planning, etc., Act, 1909.

Number of dwelling houses inspected under and for the purposes of the section, nil.

Number of such dwelling houses which were considered to be in a state so dangerous or injurious to health so as to be unfit for human habitation, nil.

Number of such dwelling houses in respect of which representations were made to the Local Authority with a view to making of Closing Orders, nil.

Number of dwelling houses in respect of which Closing Orders were made by the Local Authority, nil.

Number of dwelling houses the defects in which were remedied without the making of Closing Orders, nil.

Number of dwelling houses which, after the making of Closing Orders, were made fit for human habitation, nil.

Number of representations made re obstructive buildings, nil.

STAFF.

During the year 1919, through the depletion of Staff on account of the War, no Special Inspector was engaged for Housing.

Since the re-organisation of the Staff at the end of the year, three Inspectors have been put upon Housing work. Their duties have been chiefly the inspection of unhealthy areas. The Chief Inspector of Nuisances and the District Inspectors are for the present undertaking inspections of and work in connection with the general repair of houses under the Public Health Acts.

Extracts from Survey of Housing Needs.

SECTION I.—PREVAILING CONDITIONS AFFECTING SHORTAGE OF HOUSES.

POPULATION.

Pre-war population (1914)	...	...	...	...	239,515
Average annual increase of population for the five years before the war	...	...	...	...	1,676
Estimated present population	...	...	...	...	233,465

EXISTING HOUSING ACCOMMODATION.

Number of dwelling houses in the district	...	...	50,000
Number of working class houses of the types given in the reply to question 15	...	...	43,500
Average number of working class houses built annually during the five years before the war	...	...	168
Number of working class houses built between January 1st, 1915, and December 31st, 1918	...	...	23
Number of empty buildings which might be (a) made suitable, by repairs or alterations, for housing the working classes; or (b) converted into flats for the working classes	...	...	None

OVERCROWDING.

Tenements with more than two occupants per room:—

					At Census 1911
Number of tenements	...	...	...	...	2,136
Total number of occupiers	...	...	...	...	19,770
Number of houses intended for one family only which are now occupied (without having been specially adapted) by two or more families	...	...	...	...	*14 0/0

*Of 1,463 houses visited 207 were occupied by two or more families.

RENTS.

Particulars of prevailing rents of the various types of working class houses in the district:—

Type of house.	Weekly rent.
(a) Houses with living room, scullery, and two bedrooms	3/- to 3/6 net.*
(b) Living room, scullery, and three bedrooms	No such type in this district.
(c) Parlour, scullery, living room and two bedrooms	3/10 to 4/2 net.*
(d) Parlour, living room, scullery, and three bedrooms	4/4 to 4/10 net.*
(e) Parlour, living room, scullery, and four bedrooms	No such type in this district.
(f) Tenements in block buildings	ditto.
(g) Other working class dwellings:— Parlour, sitting room, kitchen, scullery, and three bedrooms	5/3 to 6/- net.*

*Net means rent exclusive of rates.

SECTION 2.—ESTIMATE OF HOUSING NEEDS.

1.—Working class houses required during the next three years to—
No. of houses..

(a) Meet the unsatisfied demand for houses (taking into account growth of population, overcrowding, &c.)	5,000
(b) Re-house persons to be displaced by the clearance of unhealthy areas	3,000
(c) Replace other dwellings which are unfit for habitation and cannot be made fit	350
(d) Replace obstructive or other buildings (now inhabited and not included under heading "C") which should be demolished	—
(e) Replace other houses which although they cannot, at present be regarded as unfit for human habitation, fall definitely below reasonable standard	1,600
(f) Meet anticipated deficiencies, e.g., arising from new industrial development	—
Total	9,950

2.—*Deduct*—

(a) Working class houses which it is anticipated will be set free during the next three years, as the result of any probable decrease in the population	—
(b) Working class houses likely to be built during the next three years by persons other than the Local Authority	20
Total	9,930

SECTION 3.—AREAS WHICH ARE BEING, OR MAY HAVE TO BE, DEALT WITH AS UNHEALTHY AREAS UNDER PART I OR PART II OF THE ACT OF 1890.

Specified Area	Reference No. on Map (see Section V)	Acreage	Whether already officially represented as unhealthy	No. of houses (dwelling)	Population (approximate)
Tunstall—America Street Area	1	6·8	No	192	960
Sneyd Street "	2	18·9	"	452	2260
Burslem—Hadderidge "	3	7·2	"	279	1395
Swan Bank "	4	11·1	"	139	695
Hanley—Marsh Street "	5	11·5	"	223	1115
Bryan Street "	6	7·6	"	200	1000
Providence Square "	7	8·53	"	312	1560
Broad Street "	8	7·01	"	272	1360
Stoke—Hill Street "	9	8·8	"	254	1270
Fenton—Market Street "	10	15·3	"	250	1250
Longton—Wood Street "	11	8·5	"	193	965
Edensor Road "	12	7·5	"	225	1125
Sutherland Road "	13	29·2	"	474	2370
Normacot Road "	14	48·0	"	687	3435
Total	...	195·94		4152	20760

SECTION 4.—INSANITARY HOUSES (OTHER THAN HOUSES IN
UNHEALTHY AREAS OF WHICH PARTICULARS ARE
GIVEN IN SECTION 3).

Prevailing conditions—

(1) How many inhabited houses are there in the district which are not and cannot be made fit for human habitation?	...	...	...	...	350
(2) Number of persons inhabiting these houses	...				1750
(3) How many houses are already subject to—					
(a) Closing Orders?	...	...	...		42
(b) Demolition Orders?	...	...	...		29
(4) How many houses are seriously defective but can be made habitable?	...	...	...	...	250

**REGISTER OF RAINFALL IN 1919,
KEPT AT THE MEIR, LONGTON.**

(By the courtesy of Mr. R. C. Frain).

	Total Depth (inches)	Greatest Rainfall in 24 hours		No. of days on which .01 inch or more fell
		Inches	Date	
January	3.94	0.60	20th	22
February	1.43	0.42	16th	9
March	4.36	0.75	11th & 26th	22
April	1.67	0.40	14th	15
May	0.93	0.55	5th	6
June	1.74	0.29	30th	13
July	1.91	0.46	19th	14
August	2.51	0.55	19th	11
September ..	3.06	0.75	22nd	12
October	3.04	0.95	23th	10
November ...	1.97	0.65	17th	16
December ...	5.04	1.09	22nd	25
Totals ..	31.60	—	—	175

